EUB/AGS Earth Sciences Report 2005-01

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Geochemical Orientation Surveys (Fiscal Year 2000-2001) for Kimberlites in Northern Alberta

Alberta Energy and Utilities Board

Alberta Geological Survey

106-00079/

Earth Sciences Report 2005-01

Geochemical Orientation Surveys (Fiscal Year 2000-2001) for Kimberlites in Northern Alberta

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February 2005

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ISBN# 0-7785-3850-8

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Seneshen, D.M., Grunsky, E.C., Rencz, A., Hall, G.E.M. and Dunn, C.E. (2005): Geochemical orientation surveys (fiscal year 2000-2001) for kimberlites in northern Alberta; Alberta Energy and Utilities Board, EUB/AGS, Earth Sciences Report 2005-01, 232 p.

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Published February 2005 by:
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4999 – 98th Avenue
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T6B 2X3

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Acknowledgments

This study benefited greatly from present and former staff of the Alberta Geological Survey. Dr. B. Molak (formerly Alberta Geological Survey) is acknowledged for his effort in the collection and processing of soil and till samples from Mountain Lake and the Buffalo Head Hills. R. Guy (formerly Alberta Geological Survey) also helped collect soil, till and vegetation samples over the Legend Kimberlite Pipe in the Birch Mountains. R. Eccles, L. Andriashek and M. Fenton are acknowledged for providing valuable insight into kimberlite pipes, soil horizons and glacial stratigraphy during a field trip at the beginning of the field season. J. Weiss prepared the poster for presentation of results at conferences.

S. Balzar completed technical editing and G. Hippolt-Squair proofread the manuscript. C. Kehoe, G. Prior and M. Protz prepared the manuscript for publication.

D. Skelton of Ashton Mining of Canada graciously provided accommodation for us in their field camp during the sampling program in the Buffalo Head Hills, and Paramount Resources provided accommodation in their Legend Gas camp and use of their ATVs for sampling in the Birch Mountains.

Abstract

During the 1990s, ultramafic diatremes were discovered in three separate areas of northern Alberta. In 1990, Monopros Limited discovered the Mountain Lake diatreme located northeast of Grande Prairie. In 1997, Ashton Mining of Canada Inc., in conjunction with Alberta Energy Company and Pure Gold Resources Ltd., discovered kimberlites on the southeastern flanks of the Buffalo Head Hills. To date, Ashton has discovered 36 pipes. In 1998, Kennecott Exploration Canada Inc., in conjunction with Montello Resources Ltd., discovered seven kimberlites in the Birch Mountains of northeastern Alberta. In December 2000, New Blue Ribbon Resources Ltd. discovered an eighth kimberlite in the Birch Mountains.

Although regional till sampling has been conducted in southern Alberta for extraction and analysis of kimberlite indicator minerals, most of the discoveries in northern Alberta were made with airborne and ground geophysical techniques, including seismic, magnetics and gravity. In northern Alberta, indicator mineral analysis may not be effective for detecting kimberlites because kimberlites are decoupled from streams draining upland areas by thick till cover, and the remoteness of northern Alberta makes basal till collection difficult and prohibitively expensive. Instead of pursuing mechanically dispersed anomalies from buried kimberlite pipes, this program focused on searching for pathfinder elements in plant tissue, soil, till and bog sediments that have been chemically dispersed from weathered kimberlites under glacial drift.

A total of 806 samples were collected during detailed orientation surveys at Mountain Lake (1 pipe), Buffalo Head Hills (3 pipes) and Birch Mountains (1 pipe). Samples collected over the pipes included white and black spruce top twigs, ground level aspen bark, willow twigs, spruce needles, A- and B-horizon soils, C-horizon till, peat, and subpeat sediments. The vegetation samples were dried and ashed at the Geological Survey of Canada (GSC), and the ash samples were sent to Acme Laboratories for acid digestion and multi-element Inductively Coupled Plasma – Mass Spectrometer (ICP-MS) analysis (Group 1VE). The A-horizon soil samples were dried and sieved at the GSC and sent to Acme Laboratories for acid digestion and multi-element ICP-MS analysis (Group 1F), loss on ignition (LOI), pH and conductivity. Peat, subpeat sediments, B-horizon soil and C-horizon till were dried and sieved at the Alberta Geological Survey (AGS) Laboratory and sent to Acme Laboratories for acid digestion and multi-element ICP-MS analysis (Group 1F), pH and conductivity. Splits of the same B- and C-horizon samples were submitted to Activation Laboratories for Enhanced Enzyme Leach and multi-element ICP-MS analysis.

The results of the 2000 fiscal year geochemical program are summarized below. In general, the quality of the analytical data are good, but the precision shown by enzyme extractable elements in reference materials and field samples is inferior to that shown by Group 1F extractable elements.

As expected, the within-site variability comprises a significant proportion of the total variability. Variability decreases considerably within the samples, and sieving of the samples further decreases the variability. These observations indicate that source minerals susceptible to attack by the Group 1F analysis and enzyme leach are more uniformly distributed within 1 kg samples than within the sample sites themselves.

The three main suites of elements that are anomalous in various sample media over kimberlite pipes covered by shallow (<2 m), moderate (10-15 m) and very thick (>30 m) glacial drift are:

{PEA} *Primary Element Association* (Ni, Co, Cu, Cr, Ti, V, Mg, Mn, Fe).

{SEA} *Secondary Element Association* (H^+, Nb, Rb, Zr, Y, Sc, Th, U, Cs, REE, P, Al, K, Na, Ca, Ba, Sn, Mo, W, Cd, Zn, Pb, B, Hf, Ga).

{TEA} *Tertiary Element Association* (Au, Ag, Re, Te, Se, Sb, Bi, S).

Anomaly contrast for elements in the three associations decreases markedly from ultramafic diatremes under shallow cover (<2 m) to those under intermediate (10-15 m) to very deep cover (>30 m). For most sample media, the contrast shown by elements of the TEA and SEA suites is typically higher than those of the PEA suite. Enzyme extractable elements show higher contrast than Group 1F extractable elements in B-horizon soil, C-horizon till and subpeat sediments.

The anomaly patterns examined in this study suggest there is very little, if any, chemical dispersion of kimberlite pathfinder elements downslope and/or down-ice from buried pipes. As such, these methods should be used for classifying airborne or ground geophysical targets by sampling of plant tissue, soil, till, peat and/or subpeat sediments at short intervals (<50 m). Sampling at larger intervals (e.g., 1 km) in a regional geochemical survey could potentially miss buried kimberlite pipes, although it may succeed in identifying kimberlite clusters for more focused follow up.

In the case of shallow glacial drift (<2 m), high contrast, Group 1F multi-element anomalies over buried kimberlite are evident in trembling aspen bark, twigs, stems (Eccles, 1998a), A- and B-horizon soil, and C-horizon till. In the interest of time and cost for ground-truthing geophysical anomalies, it is recommended that trembling aspen or spruce tissue be sampled at short intervals (<50 m) and analyzed by Group 1F analysis.

In the case of moderately deep glacial drift (10-15 m), low to moderate contrast, Group 1F and/or enzyme multi-element anomalies over buried kimberlite are evident in white and black spruce-top twigs, ground-level spruce needles, A- and B-horizon soil, and C-horizon till. In the interest of time and cost for ground-truthing geophysical anomalies, it is recommended that white or black spruce tissue be samples on the ground or from a helicopter at short intervals (<50 m) and analyzed by Group 1F analysis.

In the case of deep glacial drift (>30 m), low to moderate contrast, Group 1F and/or enzyme multi-element anomalies over buried kimberlite are evident in white and black spruce-top twigs, ground-level willow twigs, A- and B-horizon soil, C-horizon till, peat and subpeat sediments. In the interest of time and cost for ground-truthing geophysical anomalies, it is recommended that white or black spruce tissue be sampled on the ground or from a helicopter at short intervals (<50 m) and analyzed by Group 1F analysis.

1 Introduction

During the 1990s, ultramafic diatremes were discovered in three separate areas of northern Alberta. In 1990, Monopros Limited discovered the Mountain Lake diatreme located northeast of Grande Prairie. In 1997, Ashton Mining of Canada Inc., in conjunction with Alberta Energy Company and Pure Gold Resources Ltd., discovered kimberlites on the southeastern flanks of the Buffalo Head Hills. To date, Ashton has discovered 36 pipes. In 1998, Kennecott Exploration Canada Inc. in conjunction with Montello Resources Ltd., discovered seven kimberlites in the Birch Mountains of northeastern Alberta. In December 2000, New Blue Ribbon Resources Ltd. discovered an eighth kimberlite in the Birch Mountains.

Most of these discoveries were made using airborne and ground geophysical techniques (seismic, magnetics, gravity). Other techniques employed in kimberlite exploration elsewhere include

- analysis of kimberlite indicator minerals from stream sediments (Guptasarma and Chetty, 1986) and glacial drift (Fipke et al., 1995; Lockhart and Carlson, 1998; Fedikow and Nielsen, 1999);
- analysis of the stream sediment silt for chemically dispersed pathfinders of kimberlites (Gregory and Tooms, 1969);
- analysis of residual and transported soils to detect buried kimberlites (Menechel, 1982; Mathur and Alexander, 1983; Komogorova et al., 1987);
- geobotanical and biogeochemical signatures of kimberlite pipes (Mathur and Alexander, 1983; Alexander and Shrivastava, 1984; Komogorova et al., 1987; Dunn, 1993); and
- remote sensing techniques (Woodzick, 1981; Almeida-Filho and Castelo-Branco, 1992; Jenkerson et al., 1997).

Although extensive till sampling has been mainly carried out through the southern half of Alberta (Thorleifson and Garrett, 1993), there have been limited geochemical surveys in the northern half of the province. A biogeochemical and soil survey was carried out over the shallow-buried Mountain Lake Diatreme (Eccles, 1998a,b), but the chemical signature in sample media over more deeply buried pipes in the Buffalo Head Hills and Birch Mountains has not been evaluated.

The till cover in the boreal forest of northern Alberta is more variable than in the southern prairies. The sluggish streams that drain uplands in northern Alberta (e.g., Buffalo Head Hills) probably decouple from kimberlites buried by variable till cover, and stream sediments are, therefore, not likely to contain significant quantities of indicator minerals for analysis. Although indicator minerals may be present in basal till, the remoteness of northern Alberta precludes the collection of this sample medium on a routine basis. Due to the presumed difficulty in documenting mechanically dispersed anomalies from buried kimberlites in northern Alberta, the 2000-2001 fiscal year geochemical program focused on defining chemically dispersed signatures of buried kimberlite pipes. The main objective of the program was to identify sample media and analytical techniques that could be used to explore for diamonds and other commodities both on regional and detailed scales. The long-term goal of the project over the next 10 years is to produce a geochemical map of northern Alberta for the benefit of the petroleum, mining, forestry and environmental industries.

This study reports on the first year results of a three-year joint Targeted Geoscience Initiative between the Geological Survey of Canada (GSC) and the Alberta Geological Survey (AGS). The Methodology section summarizes criteria for selection of study areas, the number and type of sample media collected, and the protocols for sample collection, sample preparation, analysis, monitoring of variability and interpretation of results. This is followed by a description of the accuracy and precision shown by the reference materials and duplicates that were inserted at regular intervals in analytical batches. The results of orientation surveys carried out over ultramafic diatremes in the Mountain Lake area, Buffalo Head Hills and Birch Mountains are presented in the next three sections. Subsequently, conclusions are provided and recommendations for geochemical prospecting for kimberlites in Alberta are given in the final section.

2 Methodology

Different types of sample media were collected over five diatremes with variable diameter and drift cover in northern Alberta (Figures 1 and 2; Table 1). These five diatremes were chosen for orientation studies because of their variation in composition, size and thickness of glacial drift cover.

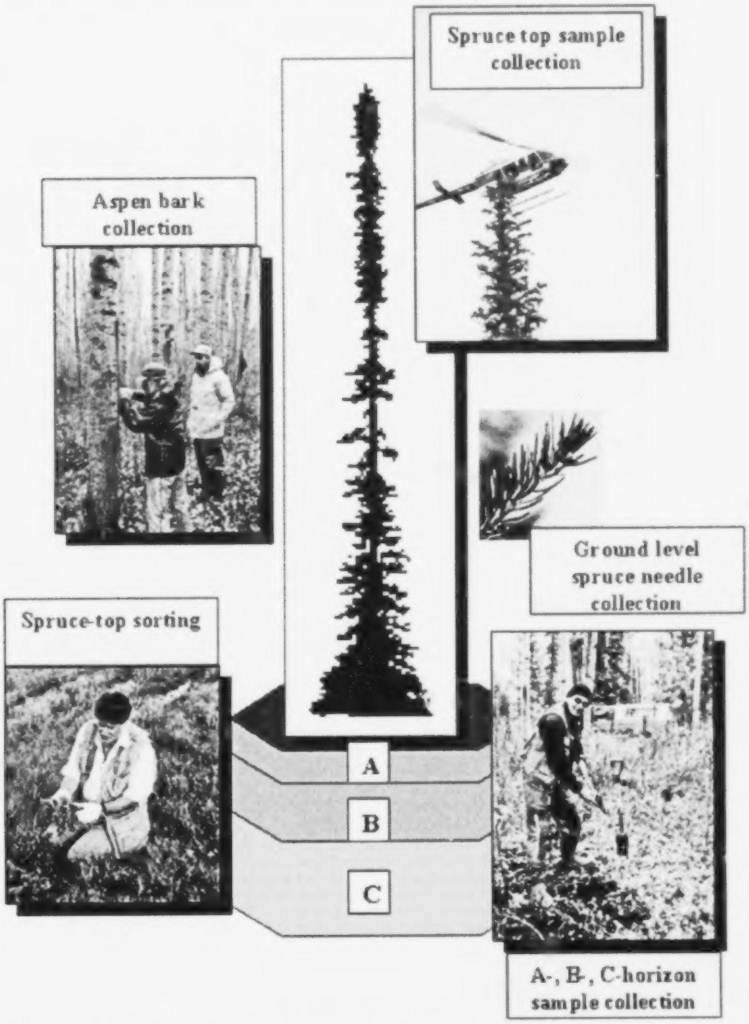
Spruce top sample collection
Aspen bark collection
Ground level spruce needle collection
Spruce-top sorting
A
B
C
A-, B-, C-horizon sample collection

Figure 1. Types of sampling protocol used to collect spruce-top twigs, ground level spruce, aspen bark, A- and B-horizon soils, and C-horizon till.

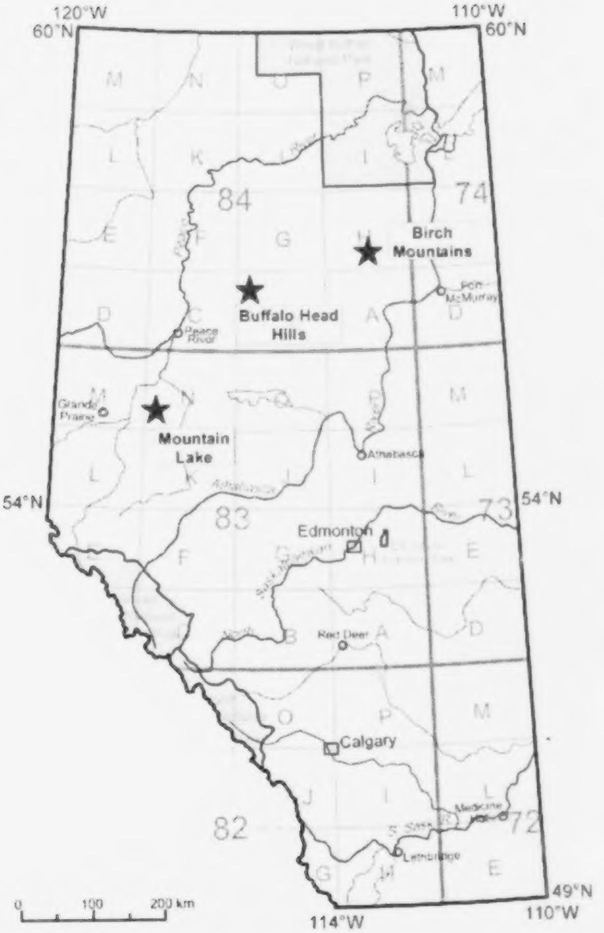

Figure 2. Location of orientation surveys over kimberlite pipes in northern Alberta.

A total of 806 samples were collected during detailed orientation surveys at Mountain Lake (1 pipe), Buffalo Head Hills (3 pipes) and Birch Mountains (1 pipe). Samples collected over the pipes included aspen bark (n=23), willow twigs (n=23), spruce needles (n=102), A-horizon soil (n=212), B-horizon soil (n=202), C-horizon till (n=196), peat (n=24) and subpeat sediments (n=24). The sample spacing varied from 25 to 50 metres over the pipes and from 50 to 100 metres in background areas. A spruce top orientation survey was conducted in the Buffalo Head Hills area to test for anomalies over kimberlite pipes using a lower sample density. A total of 205 spruce-top samples were collected at a density of 1 per 4 km^2 for 500 km^2 over a two-day period.

Table 1. Sample media collected, analytical methods, pipe diameters, and drift thickness for the five orientation survey areas in northern Alberta (BHH refers to Buffalo Head Hills).

Diatreme	Sample Media	Analysis	Pipe Diameter (m)	Drift Cover Thickness (m)
Mountain Lake	78 A-horizon soil, 78 B-horizon soil, 67 C-horizon till	ICP-MS (Group 1F, Acme) pH and conductivity (Acme)	500 x 800	0-2
TQ155 (BHH)	Spruce top twigs – part of 205 airborne ample survey of BHH, 23 aspen bark, 23 willow twigs, 28 A-horizon soil, 28 B-horizon soil, 28 C-horizon till, 24 peat, 24 subpeat sediment	ICP-MS (Group 1F, Acme) pH and conductivity (Acme) Enhanced Enzyme Leach (Actlabs)	100 x 150	34
K5 (BHH)	Spruce top twigs – part of 205 airborne ample survey of BHH, 22 A-horizon soil, 22 B-horizon soil, 22 C-horizon till	ICP-MS (Group 1F, Acme) pH and conductivity (Acme) Enhanced Enzyme Leach (Actlabs)	600 x 600	0-14
K11 (BHH)	Spruce top twigs – part of 205 airborne sample survey of BHH, 22 ground-level spruce needles, 22 A-horizon soil, 22 B-horizon soil, 22 C-horizon till	ICP-MS (Group 1F, Acme) pH and conductivity (Acme) Enhanced Enzyme Leach (Actlabs)	250 x 400	13
Legend (BM)	38 ground-level spruce needles, 53 A-horizon soil, 53 B-horizon soil, 53 C-horizon till	Group 1F (Acme) pH and conductivity (Acme) Enhanced Enzyme Leach (Actlabs)	750 x 750	12

2.1 Sample Collection

2.1.1 Plant Tissue

At TQ155, approximately 2 kg of bark was stripped with a machete at shoulder height from several aspen trees spaced approximately 5 m apart within a sample site. About 1 kg of willow twigs of consistent diameter (1 cm) were cut from several trees within a sample site with pruning shears. The samples were stored and transported in pre-labelled, sealed rice bags. At K11 and Legend pipes, approximately 1 kg of black spruce bows were pruned from two trees about 5 m apart within a sample site and placed in pre-labelled, poly-weave cloth bags. A GPS was used to record UTM coordinates. The diversity and relative abundance of vegetation at each sample site was noted.

C. Dunn Consulting and Pacific Phytometric Consultants carried out the spruce top survey over kimberlite pipes in the Buffalo Head Hills according to a sample plan designed by the Alberta Geological Survey. With the support of a helicopter, white and black spruce crowns were collected at a rate of 1 sample every 2 minutes. At each site, a GPS was used to record UTM coordinates. Samples were placed in pre-labelled, cotton cloth bags.

2.1.2 Soil and Till

At each sample site pits were dug to about 50 cm depth using a metal spade. Well-decayed A-horizon (A_0) humus samples (1 kg) were collected immediately below the forest litter. B-horizon samples (1 kg) were collected from about 15 to 25 cm depth with a hand trowel where blocky ped structures (an individual soil structural element), typical of this horizon, are apparent. C-horizon till (1 kg) was obtained by hand-augering from depths of 50 to 200 cm below the ground surface with a Dutch auger. The C-horizon was identified by the absence of blocky peds seen in the B-horizon. Samples from the three horizons were collected in pre-labelled, plastic Ziploc® bags for storage and transport. Information recorded at each sample site included the sample number, UTM coordinates, vegetation diversity and abundance, sample depth, horizon thickness, degree of decay for A-horizon samples (on a scale of 1 to 10), relative abundance of gravel, sand, silt, and clay in B- and C-horizon samples, and Munsell colour of B-horizon soil and C-horizon till.

2.2 Sample Preparation

The plant tissue and A-horizon soil samples were processed at the GSC prior to chemical analysis. A-horizon soils were air-dried for two weeks at the GSC, mechanically disaggregated using a mortar and pestle, and sieved to -200 μm. All plant tissue was placed on trays and dried for one to two weeks. The spruce bows were separated into twigs and needles for ashing. The spruce needles and twigs, aspen bark, and willow twigs were placed in a kiln at room temperature, and the temperature was gradually elevated to 470°C over a period of two hours. The samples were left to smoulder for an additional eight hours to remove all traces of carbon. If any carbon flecks remained, the samples were put back in the kiln and the entire cycle was repeated.

B-horizon soil, C-horizon till, peat, and subpeat sediments were processed at the Alberta Geological Survey laboratory in Edmonton. Approximately 800 to 1000 g of each sample was placed on pre-labelled paper plates for gravimetric moisture determination. The sample was weighed wet on a calibrated balance and then the sample was allowed to air dry for two weeks. The dried sample was then re-weighed and gravimetric moisture loss was calculated. The moisture content of the samples was calculated because others have found an increase in the moisture content of soils over kimberlite pipes (Woodzick, 1981). Following drying, each sample was pulverized using a mortar and pestle, if necessary, and then poured into a nest of –250 μm and –63 μm stainless steel sieves with a top cover and bottom pan. The sieve nest was placed on a sieve shaker for ten minutes. The weight of each grain size fraction (+250 μm, +63-250 μm and –63 μm) was recorded and stored in pre-labelled Ziploc® bags. The pulverizing and sieving apparatuses were cleaned vigorously between samples to prevent cross-contamination.

2.3 Analysis

Fifteen gram splits of all sample media (except 1g of each vegetation ash) from the five study areas (Table 1), together with quality control standards and duplicates, were submitted to Acme Analytical Laboratories of Vancouver for Group 1F-MS analysis for 62 elements (see Appendix 2 for detection limits). A split of 15 g was chosen over the standard 1 g size to reduce the nugget effect commonly shown by precious metals. Samples sent included 1g of ash from ashed willow twigs, aspen bark, spruce needles and twigs, -200 μm A-horizon humus, -63 μm B-horizon soil, -63 μm C-horizon till, -63 μm peat, and -63 μm subpeat sediments. The 15 g samples were digested in aqua regia and analyzed for 62 elements by Inductively Coupled Plasma – Mass Spectrometer (ICP-MS). In addition to digesting precious metals (Au, Ag, Pt and Pd), this reagent is strong enough to dissolve metal salts, carbonates, sulphides, most sulphates and some oxides and silicates. The ICP-MS is an instrument capable of determining the concentrations of over 70 elements simultaneously by measuring the mass of ions generated by an argon gas heated to 10,000°K and passing through a magnetic quadrupole to the detector. The instrument is capable of ultra low detection limits (ppb to ppt) with very wide linear ranges (up to seven orders of magnitude). In addition to the multi-element analysis, 2 g splits of each sediment sample were agitated in 100 ml de-ionized water and centrifuged prior to measuring the conductivity and pH of the supernatant solution. One-gram samples of vegetation ash were digested and analyzed by the same methods as the other media. This amount of ash was from 30 to 50 g of dry tissue (depending on tissue type). The reduction to ash preconcentrates tissues prior to analysis.

The enhanced enzyme leach (EEL) was applied to B-horizon soils and C-horizon till over pipes with thicker till cover (Table A1; Appendix 1) as this weak extraction is thought to detect weathered mineral deposits under thick transported overburden (Clark et al., 1990). Hydrogen peroxide (H_2O_2) is commonly used as an oxidizing agent for the decomposition of organic matter and sulphides, but it also acts as a reducing agent for the higher oxides of Mn (Rose and Suhr, 1971). In aqueous solution, it reacts with MnO_2 consuming H^+ ions to reduce Mn^{4+} to soluble Mn^{2+} as shown in the following reaction:

$$MnO_{2(s)} + H_2O_2 + 2H^+ \Rightarrow Mn^{2+} + O_{2(aq)} + 2H_2O$$

Other workers have used hydrogen peroxide in low concentration for reducing Mn-oxides because hydroxylamine hydrochloride attacks multiple mineral substrates, and the resulting leachates are rich in chloride ions, which cause element interferences during ICP-MS or flameless AA analysis (Clark et al., 1990). To overcome this problem, the 'Enzyme Leach' was developed to selectively extract only amorphous Mn-oxides from surficial media for the purpose of identifying mineralization buried deeply under transported overburden (Clark et al., 1990).

Low levels of gluconic acid and hydrogen peroxide (<40 ppm) are produced by the reaction of water, glucose (sugar) and the enzyme 'glucose oxidase' (food preservative) at pH values between five and six. A 15-ml aliquot of the enzyme solution is added to a 1 g sub-sample of –250 µm soil in a test tube, and the solution is mixed. The hydrogen peroxide reduces and dissolves only amorphous Mn-oxides to release trace elements to solution, and these elements are held in solution by the gluconic acid. The reaction is self-limiting in that, once all of the Mn is consumed, the reaction stops ensuring that other substrates (e.g., most of the Fe-oxides) remain intact.

The enzyme leachates are centrifuged at 2000 rpm for 10 minutes to suppress suspended particles (i.e., <2 µm) prior to ICP-MS analysis for 62 elements at the ppb level, which is up to three orders of magnitude lower than element concentrations reported by the aqua regia extraction. In general, the enzyme leach extracts less than 5% of aqua regia extractable elements from soils.

2.4 Monitoring of Variability

In any orientation study, the variability associated with the analysis and medium type must be evaluated within the sample site, the unprocessed sample and the processed sample to choose the suitable sample medium and analytical methods for future surveys. Sample media and analytical variability that show the lowest variability at the three different stages are preferred for future surveys as there is a better chance of statistically significant anomalies in the data. The different components of variability monitored in this study are given below.

2.4.1 Analytical Variance ($S^2_{Analytical}$)

The analytical variance expresses the reproducibility of the analytical procedures. Also inherent in this expression is the homogeneity of a particular reference material with respect to a particular element. In this work, the variance was assessed by the replicate analysis of international standards (Till2 and

Till3) and secondary AGS reference materials (NAT98-282); the latter were developed in house. The reference materials were included at regular intervals in analytical batches of field samples with a 10% frequency. However, in many of the analytical batches, the element contents of these reference materials did not extend over the concentration range of the associated field samples. For this reason, the analytical variance was also monitored using laboratory duplicates which were prepared by taking splits of processed (i.e., dried and ashed or sieved) vegetation, A-horizon humus, B-horizon soil and C-horizon till (Figure 3). In most cases, the element contents of the analytical duplicates extend over the concentration range of the field samples, and the variability found using the duplicates is equal to, or lower than, the variability associated with the reference materials.

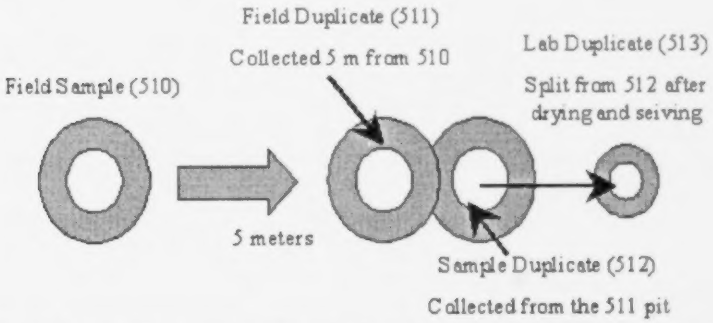

Figure 3. Sampling scheme for the collection of field, sample, and lab duplicates to monitor multistage variability.

The analytical coefficient of variation is taken as a measure of how well mean element concentrations of samples can be estimated at the analytical stage on the basis of replicate or duplicate analysis. The coefficient of variation is a measure of the relative precision defined as the standard deviation divided by the sample mean. In other words, if a particular sample that is repeatedly analyzed gives a mean concentration of 200 ppm Zn, a coefficient of variation of 0.1 would signify a relative standard deviation of ±10% or ±20 ppm.

In this study, all coefficients of variation are calculated at the 95% confidence level, which means that in the example given, repeated analyses of the sample would result in concentrations that are between 180 and 220 ppm 95 times out of 100.

2.4.2 Within-sample Variance ($S^2_{WSample}$)

In this study, 1 kg organic and inorganic field samples were collected for partial extraction analysis. A 15-g (i.e., for Group 1F aqua regia) to 1-g (i.e., for enzyme leach) aliquot is used for partial extraction analysis, and the element concentrations reported are assumed to be representative of the 1-kg field sample.

The sample representivity can be estimated using the sample variability, which is a measure of the homogeneity within the 1-kg field samples that were collected from different media and analyzed by various partial extractions. Sample representivity was monitored using sample duplicates that were prepared by drying, sieving and analyzing sub-samples from the 1-kg field samples (Figure 3).

2.4.3 Within-site Variance (S^2_{WSite})

If, for example, field samples are collected at 10 m intervals, a 20-m diameter circle can represent the total area of the sample site. Assuming an average vertical sample interval of 20 cm, and an average soil density of 1.2 g/cm^3 (Brady, 1990), then the total mass of soil available for sampling at the site is 75,000,000 g. It is assumed the 1000-g field sample is representative of the total mass of soil at the site, and furthermore, that the 0.25 to 1-g sub-sample taken for partial extraction analysis is also representative of the 75,000,000 g of soil. The 1-g sub-sample used in the enzyme leach comprises a very small proportion (13×10^{-7}%) of the sample site, and therefore, the representivity of the sample sites, or indeed the field samples themselves, is of serious concern.

The sample representivity associated with the glacial till over the diatremes was monitored using field duplicates (Figure 3). The duplicate pairs were collected 5 m apart at every tenth sample site. The sample duplicate was collected from the same site as the field duplicate.

2.5 Interpretation of results

The data were first 'cleaned' (i.e., detection limits halved) and then plotted as single element proportional dots in ArcView. The spruce-top twig data were gridded, colour-contoured and superimposed on Landsat images with ER-Mapper. The data for each sample media analyzed by Group 1F-MS and enzyme leach were subjected to principle components analysis to look for element associations related to buried kimberlites. Presentation of these data is beyond the scope of this report; however, the elemental character of anomalies over the diatremes is summarized in Table 3. Important pathfinder element suites identified in plant tissue, soil, till, peat and subpeat sediments are as follows:

1) **{PEA}** *Primary Element Association* (Ni, Co, Cu, Cr, Ti, V, Mg, Mn, Fe).
2) **{SEA}** *Secondary Element Association* (H^+, Nb, Rb, Zr, Y, Sc, Th, U, Cs, REE, P, Al, K, Na, Ca, Ba, Sn, Mo, W, Cd, Zn, Pb, B, Hf, Ga, In).
3) **{TEA}** *Tertiary Element Association* (Au, Ag, Re, Te, Se, Sb, Bi, S)

Although these associations will be mentioned throughout the report, the text will focus on the geochemical plots for nickel and niobium (Ni and Nb), which are commonly anomalous over the diatremes and are, therefore, suitable elements for comparison of the various sample media and analytical methods.

3 Quality of the Orientation Survey Data

In this section, the variability shown by different sample media and analytical methods is compared and contrasted using relative standard deviations calculated from the analysis of replicates (standards) and the three types of duplicates described in Section 2.4. The data for seven kimberlite pathfinder elements are provided in Tables A1 to A8 in Appendix 1, but for simplicity's sake, only the data for Ni, which mimics other elements, will be discussed.

3.1 Variability Shown by Organic and Inorganic Reference Materials

A set of conifer plant tissue controls (V4, V6 and V8) were used for monitoring the accuracy of element concentrations in the spruce needles and twigs, aspen bark, and willow twigs. The reference materials were prepared by Colin Dunn of the Geological Survey of Canada. Over the past 12 years, repeat analyses of several hundred splits of V6 by INAA, ICP-ES and ICP-MS have established a solid base of element concentrations. V4 and V8 are more recent controls and element concentrations are less well established. Values for V8 should be used as a general guide, since the material (spruce needles) has yet to be thoroughly homogenized and characterized. The precision for Ni is reasonably good, especially for the V6 and V4 reference materials (Table A1 in Appendix 1).

For the inorganic samples, secondary reference material (NAT98-282) and two internationally accepted standards (Till2 and Till3) were inserted in analytical batches of field samples at a frequency of 10%. For the Group 1F analysis, the Ni concentrations in two separate analytical batches show excellent precision at the 95% confidence level (Tables A2a, A3a and A4a in Appendix 1). For example, the precision for Ni remains under 9% in all three of the reference materials. The accuracy for Ni shown by Group 1F analysis of Till2 and Till3 is also excellent. The percent difference from the recommended Ni concentrations ranges from 0% to 5%.

The accuracy cannot be assessed for the enzyme analysis of Till2 and Till3 because there are no recommended values available, but the precision for enzyme-extractable Ni is very poor (85-105%) in NAT98-282 and Till2 (Tables A2b and A3b in Appendix 1). The precision improves to 31% in Till3 (Table A4b in Appendix 1), presumably because the source minerals for enzyme-extractable Ni are more uniformly distributed in this standard.

3.2 Variability Shown by Sample Media From the Five Orientation Surveys

In the presentation of the duplicate data for the various sample media and analytical methods, a ratio of the total to within-site variability is provided as a measure of statistical confidence in anomalies. When the ratio approaches 1, total variance has been reached at the sample site, and real differences in elemental concentration between sites cannot be achieved. The relative standard deviations for laboratory, sample and field duplicates of different sample media are presented to determine the homogeneity of source minerals within the sample and sample site. This information is used to choose the most suitable media and analytical methods for future surveys.

3.2.1 Plant Tissue (Table A5 in Appendix 1)

The total/field variance ratios are above 1 for the ground level spruce needles and the white and black spruce top twigs, suggesting there are significant differences in Ni concentration between sample sites. As expected, the within-site variability comprises the largest proportion of the total variability followed by the within-sample variability. In the case of the white spruce twigs, the variability within the duplicate splits after ashing (laboratory duplicate) is about half of that shown by the duplicate splits before ashing (sample duplicate).

3.2.2 A-Horizon Soil (Table A6 in Appendix 1)

As for the vegetation samples, the within-site variability shown by Ni in A-horizon soil from the Buffalo Head Hills (BHH), Mountain Lake and Legend is significantly greater than that shown by variability of Ni within individual samples. The total/field ratios are over 1 for BHH and Legend, and under 1 for Mountain Lake where field duplicates were collected over the diatreme and total variance in Ni is reached within a very short distance. This abrupt increase in variability of pathfinder elements in soils over the shallow-covered Mountain Lake Diatreme is probably a reflection of the irregular element migration mechanisms in near surface soils.

3.2.3 B-Horizon Soil (Table A7 in Appendix 1)

For the B-horizon soils, the total/field ratios for Ni are above 1 for the BHH and Legend areas for both the Group 1F and enzyme leach analyses, as well as for B-horizon soil analyzed by Group 1F at Mountain Lake. As for the vegetation and A-horizon soil, the variability associated with B-horizon soil within-sample sites is significantly greater than shown by the samples themselves, particularly for the Group 1F analysis. In the case of enzyme extractable Ni in the Legend B-horizon soils, however, the within-site (field duplicates) and within-sample (sample duplicates) variability are nearly equal, and it does not decrease substantially after the sample has been presumably homogenized by sieving (lab duplicate). This suggests the source minerals for the enzyme-extractable Ni are irregularly distributed within the sample itself, and this distribution cannot be homogenized significantly even by sieving the sample to –63 µm.

3.2.4 C-horizon Till (Table A8 in Appendix 1)

As for the A- and B-horizon soils, the field site variability shown by Ni for Group 1F analysis of C-horizon till is significantly higher than that shown by the within-sample variability. The sample variability is decreased somewhat by sieving (lab duplicates), but this decrease is not substantial. For the enzyme-extractable Ni, however, the within-sample variability approaches that of the site variability, suggesting a heterogeneous distribution of enzyme-susceptible source minerals in the C-horizon till. As for the Group 1F analysis of till, sieving the samples does not decrease the variability of enzyme-extractable Ni significantly. Despite the high within-site variance shown by both the Group 1F and enzyme leach analyses, the total/field ratio variability remains above 1, indicating some variance in Ni concentrations between sample sites.

There are insufficient duplicates for the peat and subpeat sediments to draw any meaningful conclusions about the variability associated with these media.

4 Mountain Lake Orientation Survey

The orientation survey over the Mountain Lake Diatreme (Figure 2) was a follow-up to a biogeochemical study that was carried out previously (Eccles, 1998). The survey aimed to test the effectiveness of the fine fraction of A- and B-horizon soil and C-horizon till for the detection of the shallow-covered diatreme. In addition to collecting samples over the pipe itself, soil and till were collected to the south and west to check for down-ice dispersion of pathfinder elements from the pipe.

4.1 Geology of the Mountain Lake Area

In 1995, Monopros Limited publicly announced the discovery of two ultramafic diatremes located directly north of Mountain Lake in northwestern Alberta, approximately 75 km northeast of Grand Prairie. The Mountain Lake Diatreme is a positive, ovoid feature 0.5 km wide by 1.5 km long and 30 m in height on an otherwise flat plain underlain by the Cretaceous Late Campanian to Maastrichtian Wapiti Formation sediments of the Western Canada Sedimentary Basin (Figure 4). The Wapiti Formation, which is approximately 150 to 200 m thick, in the study area comprises light grey, fine- to medium-grained, argillaceous, carbonaceous sandstone with interbedded siltstone, silty shale, thin layers of bentonite and coal, and local conglomerate (Dawson et al., 1989).

The Mountain Lake Diatreme consists of both northern and southern bodies. This survey was conducted over and down-ice of the southern diatreme that forms a topographic high with dimensions of 400 x 650 m (~26 ha). Petrological data from drillcore indicate that the 'South Body' is a steep-sided pipe comprised mainly of juvenile-rich volcaniclastics. A palynology date suggests a maximum emplacement age of 68 Ma (Wood et al., 1998). Pyroclastic drillcore from the south body consists largely of olivine-rich, juvenile lapilli tuff with serpentine and clay mineral pseudomorphs. Accidental fragments include ultramafic and basement xenoliths. The juvenile lapilli are composed of devitrified vesicular glass (serpentine) and microcrystalline aggregates of phlogopite, biotite, clinopyroxene, spinel, rutile, perovskite and apatite.

The Mountain Lake study area is mantled by luvisolic, gleysolic, Brunisolic and organic soils that formed on proglacial and shoreline sediments (Odynsky, 1956) and locally basal till (Eccles, 1998). Dark brown to black A-horizon soils are 4 to 62 cm thick with a median thickness of 8 cm. The underlying B-horizon soil is similar to the A-horizon soil in terms of acidity, but it is lighter brown in colour, less conductive, and has a blocky structure (Table 2). C-horizon till was obtained by digging and augering through proglacial outwash sediments to basal till, which is distinguished by angular bedrock fragments in a clay-rich matrix. The till is more alkaline and darker brown than the B-horizon soil (Table 2).

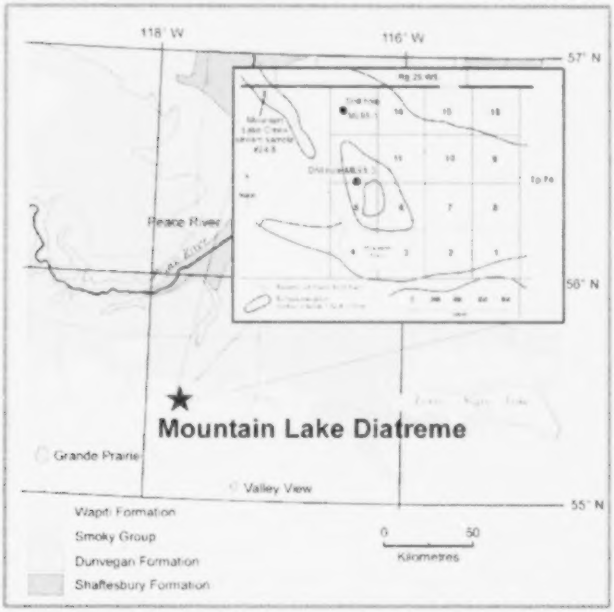

Figure 4. Location map for the Mountain Lake Diatreme.

Table 2. Characteristics of sample media collected over the Mountain Lake Diatreme

Sample Media	Colour	pH	Conductivity (µS/cm)
A-horizon soil	Dark brown to black	5.8	40
B-horizon soil	Brown (10YR 4/3)	5.7	9
C-horizon till	Very dark greyish brown (10YR 3/2)	7.4	13

In descending order of abundance, the over story in the Mountain Lake area consists of trembling aspen (*Populus tremuloides*), white spruce (*Picea glauca*), black spruce (*Picea mariana*), balsam poplar (*Populus balsamifera*), mountain alder (*Alnus tenuifolia*) and white paper birch (*Betula papyrifera*).

4.2 Results of the Multimedia Orientation Survey

Many Group 1F extractable elements that are compatible (e.g., Ni) and incompatible (e.g., Nb) are relatively enriched in soil and till over the Mountain Lake Diatreme (Table 3). A precious metal element suite is also evident in the A-horizon and B-horizon soils.

Table 3. Elemental character of anomalies over ultramafic diatremes in northern Alberta (elements are listed in decreasing order of anomaly contrast).

Sample Media	TQ155 (34 m till)	K5 (0-14 m till)	K11 (13 m till)	Legend (12 m till)	Mountain Lake (2 m till)
Spruce-top twigs Group 1F Analysis	Au, Te, Ni, P, Sc, Mo, Re, Rb, Mn, Se, Ag, Li, B, Co, Mg, Sr, Cu	Au, Cs, Te, Sc, Ni, Rb, Re, Se, P, Mn, Ag, Th, Pb, Nb, Co, V, Cu, Fe, La, Ti, Zn, Cr, B, Y, Ce	Ni, Au, Re, Nb, Ag, Co, V, Cr, Pb, Cs, Cu, Rb, B, Sc, Se, Mn	*NA	NA
Ground-level plant tissue Group 1F Analysis	*Aspen Bark* P *Willow Twigs* Cr, Ni, Ag, Al, B	NA	*Spruce Needles* Cs, Mn, V, La, Ce, Au, Al, Fe, Nb, Y, Sc, Mg, K	*Spruce Needles* Sb, Co, Cs, Ag, Ni, Mn, Rb, Ga, K, S, Nb, Al, P	NA
A-horizon soil Group 1F Analysis	H^+	Au, H^+, Nb, Rb, Cr, Ti, Ni	H^+, Se, Re, Na, Sn, S	U, Sn, Mn, Y, Ag, La, Ce, Cd, Ni, Sc	Nb, Y, Mg, Re, Se, Th, Ni, Cr, Zr, Ti, La, Hf, W, V, Ce, Sc, Li, Co, Sb, Rb, K
B-horizon soil Group 1F Analysis	H^+, Nb,	S, H^+, Ni, Ti, Zr, Sc, Ba, Cr, Nb, Al	H^+, Re, Se, S, Mn, Cd, %fines, Nb, Sb, Ni, As, %moisture	Ag, Re, Ni	Au, Ni, Nb, Ti, Mg, Cr, Mo, Mn, Co, Zr, La, W, Hf, Ce, V, Ag, Fe, K, Sc, Al, Sn
B-horizon soil Enzyme Leach	Bi, In, Nb, Ti, Hg, Sn, Ta	Ni	Mo, S, Mn	S, Re, Sn, Hg, Bi, Ni, Nb, Ti	NA
C-horizon till Group 1F Analysis	H^+, Nb, Ni	Ni, Te, Y, Nb, La, Hg, Zr	H^+, Se, Au, %fines, Cd, %moisture, Sb	S, Re, Ni	H^+, Nb, Ni, Mg, Ti, Ba, Mn, Cr, Mo, Co, W, Zr, Hf, La, Fe, Ce, V, Li, Al, Sn, Sc
C-horizon till Enzyme Leach	Sc, In, Sn, Ti, Al, Cs, Th, Cu, Nb, Fe, Se, Hg, Au, Cr, Ni, Sb, I	Sc, Re, Ga, Cs, Cd, Ti, Al, Nb, Rb, Y, K, Fe, Ni, Ce, La, U, Tl, Zr, Mg, Co	S, Ca, Re, Se, Co, Br, Hg, Mo, Sn, Au, Cd, Bi, Nb, Ti	S, Re, Th, Zr, Nb, La, Ni	NA
Subpeat Sediments Group 1F Analysis	H^+, Au, Mo, Cd, Ba, Zn, Ag, P, Ni, Eu, Co, Li, Al, Ga, V, Pb	NA	NA	NA	NA
Subpeat Sediments Enzyme Leach	Mo, Ga, Zn, Cd, Ni, Sb, Ti, Al, Hf, Ti, Zr, Ce, Co, Eu, Ba, Y, La, Cr	NA	NA	NA	NA
Peat Group 1F Analysis	Sn, $H^+_{(aq)}$, Mo, Ce, Nb, Rb, Zn, Eu, Cr, Bi, Y, Cd, Cu, Co, Sc, Ni, Ag, Ba, Sb	NA	NA	NA	NA

*NA – Not available {PEA} {SEA} {TEA}

The spatial distribution of aqua regia extractable Nb and Ni in A- and B-horizon soil and C-horizon till is represented in proportional dot (Figures 5 to 10). In the –200 µm A-horizon soil, Nb and Ni are anomalous in proximity to the margins of the diatreme and the anomalism decreases toward the centre of the body (Figures 5 and 6). The anomaly contrast shown by Ni is approximately half of that shown by Nb, but both elements show very high contrast (Table 4). The Ni anomalies to the west and south of the diatreme could reflect down-ice dispersal of ultramafic rock by glacial transport (Figure 6). Two A-horizon samples are anomalous in Nb immediately west of the diatreme, but there are no Nb anomalies directly to the south.

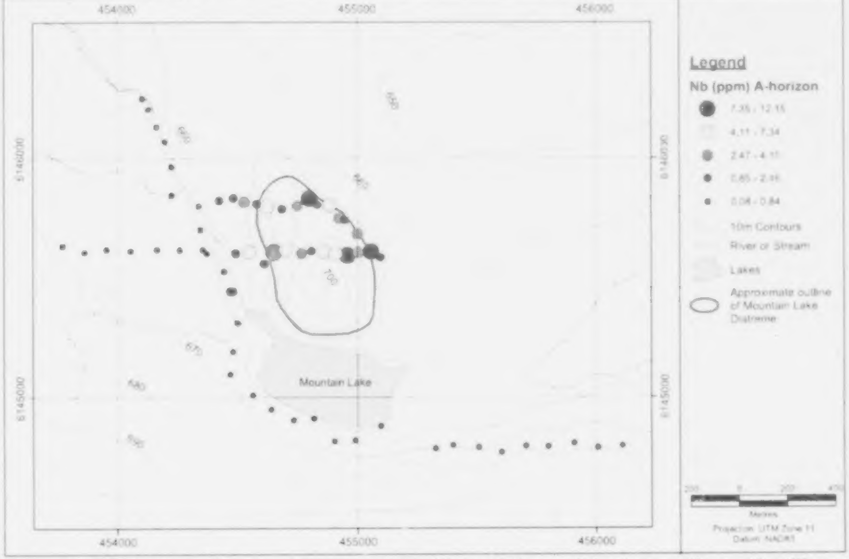

Figure 5. Distribution of aqua regia extractable Nb in –200 µ m A-horizon soil over the till-covered (2 m) Mountain Lake Diatreme.

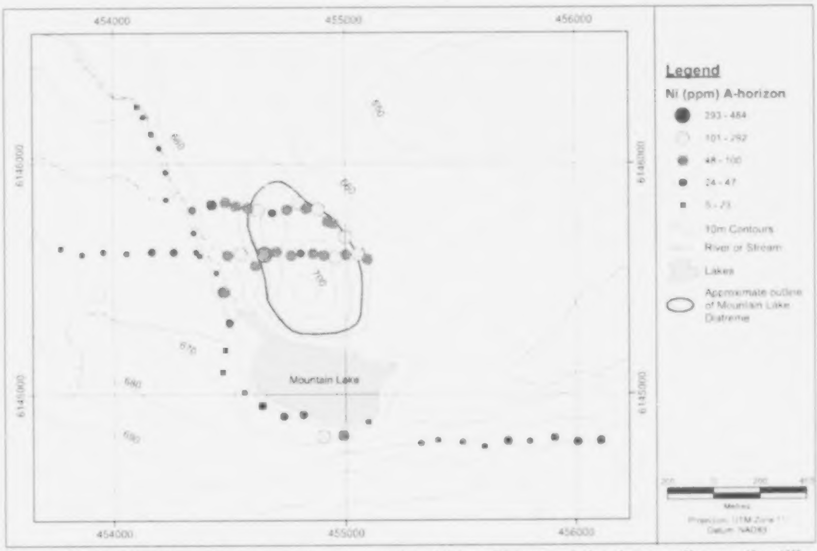

Figure 6. Distribution of aqua regia extractable Ni in –200 µ m A-horizon soil over the till-covered (2 m) Mountain Lake Diatreme.

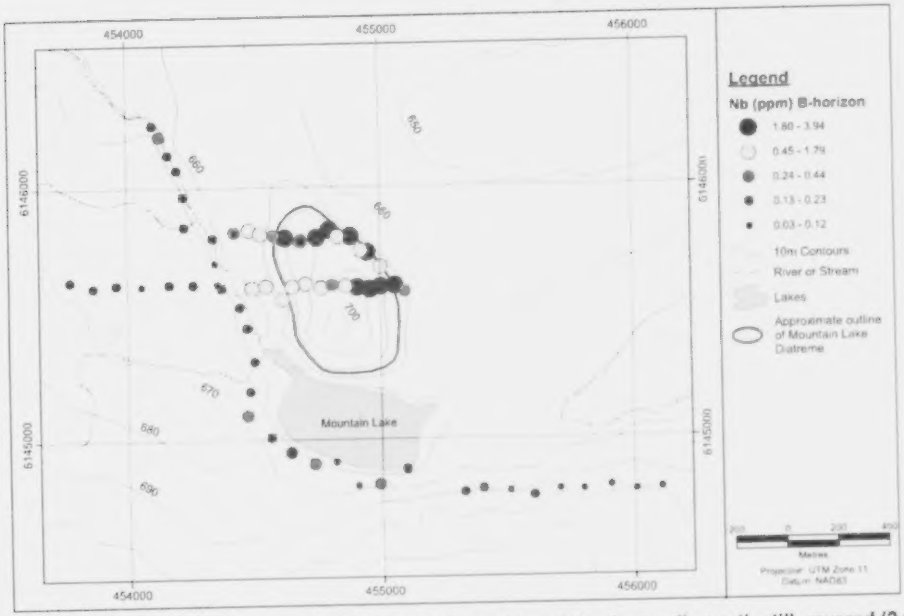

Figure 7. Distribution of aqua regia extractable Nb in -63μ m B-horizon soil over the till-covered (2 m) Mountain Lake Diatreme.

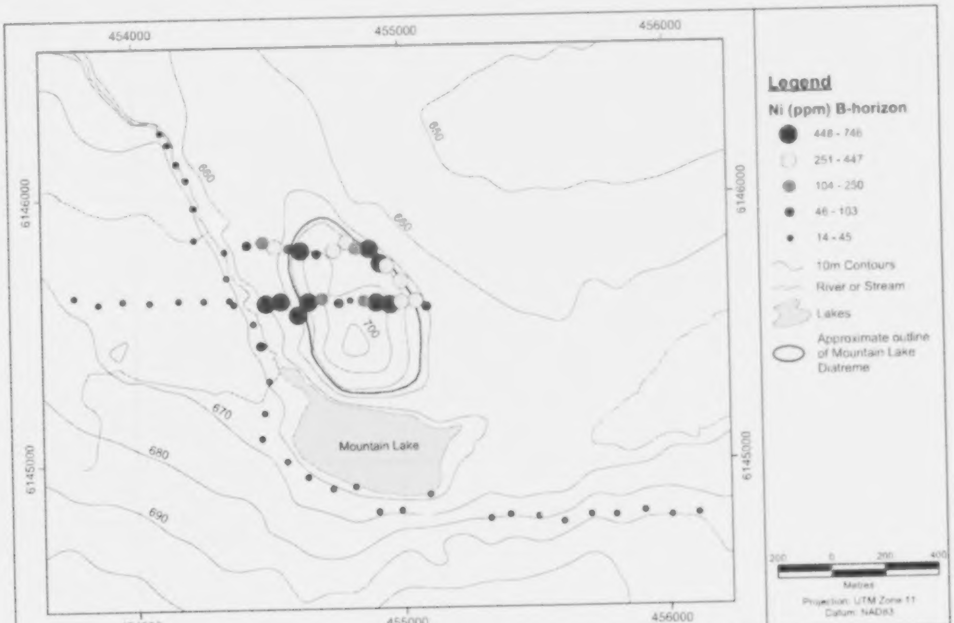

Figure 8. Distribution of aqua regia extractable Ni in -63μ m B-horizon soil over the till-covered (2 m) Mountain Lake Diatreme.

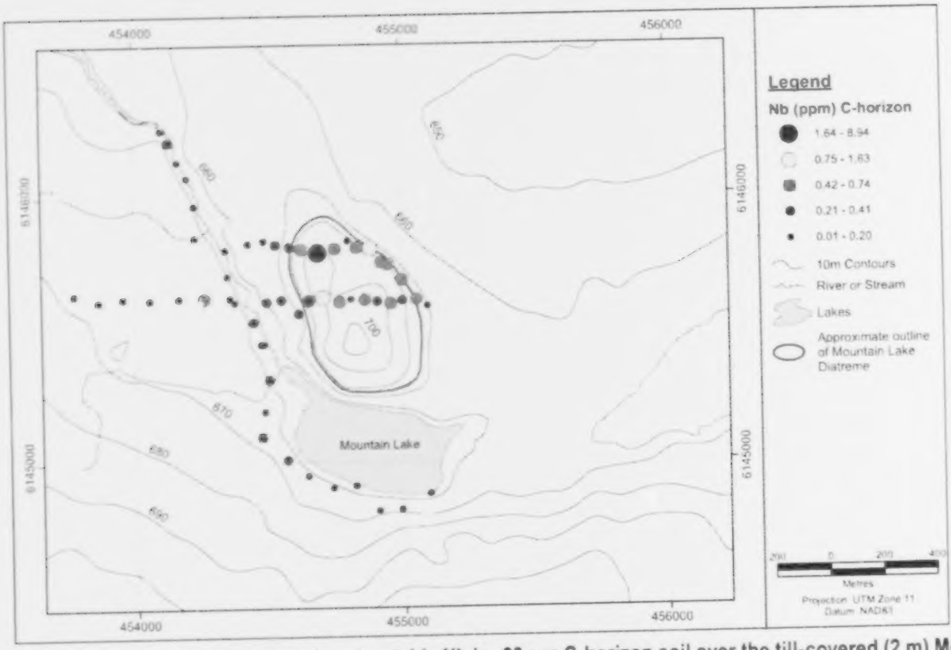

Figure 9. Distribution of aqua regia extractable Nb in -63µ m C-horizon soil over the till-covered (2 m) Mountain Lake Diatreme.

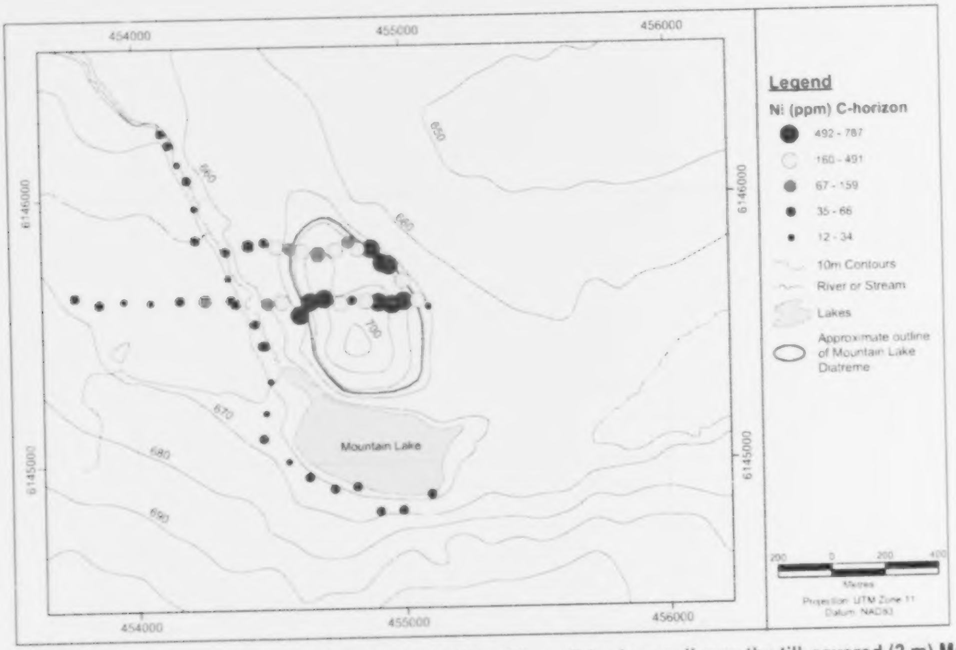

Figure 10. Distribution of aqua regia extractable Ni in -63µ m C-horizon soil over the till-covered (2 m) Mountain Lake Diatreme.

Table 4. Anomaly contrast shown by pathfinder elements in different sample media (anomaly contrast is calculated by dividing the maximum concentration by the median concentration).

Sample Media	TQ155 (34 m till)	K5 (0-14 m till)	K11 (13 m till)	Legend (12 m till)	Mountain Lake (2 m till)
Spruce-top twigs Group 1F Analysis	Ni = 4.5 Nb = 1.7 Au = 9.6 P = 3.0	Ni = 2.8 Nb = 1.7 Au = 44.6 P = 2.1	Ni = 9.8 Nb = 4.4 Au = 17.5 P = 1.3	*NA	NA
Ground-level plant tissue Group 1F Analysis	Aspen Bark Ni = 11.3 Nb = 1.4 Willow Twigs Ni=2.2 Nb=1.4	NA	Spruce Needles Ni = 4.1 Nb = 1.8	Spruce Needles Ni = 3.2 Nb = 1.8	NA
A-horizon soil Group 1F Analysis	Ni = 2.7 Nb = 2.8	Ni = 2.0 Nb = 3.9	Ni = 3.0 Nb = 2.3	Ni = 3.5 Nb = 3.0	Ni = 15.3 Nb = 32.8
B-horizon soil Group 1F Analysis	Ni = 1.7 Nb = 1.3	Ni = 2.8 Nb = 1.5	Ni = 1.6 Nb = 1.9	Ni = 2.6 Nb = 2.4	Ni = 20.2 Nb = 20.2
B-horizon soil Enzyme Leach	Ni = 2.3 Nb = 4.3	Ni = 7.0 Nb = 16.5	Ni = 2.1 Nb = 3.4	Ni = 4.1 Nb = 3.5	NA
C-horizon till Group 1F Analysis	Ni = 1.5 Nb = 1.5	Ni = 2.5 Nb = 1.5	Ni = 1.3 Nb = 3.1	Ni = 2.9 Nb = 3.0	Ni = 17.0 Nb = 47.1
C-horizon till Enzyme Leach	Ni = 2.7 Nb = 4.1	Ni = 4.4 Nb = 6.7	Ni = 2.4 Nb = 1.9	Ni = 2.5 Nb = 3.8	NA
Subpeat Sediments Group 1F Analysis	Ni = 1.4 Nb = 1.5	NA	NA	NA	NA
Subpeat Sediments Enzyme Leach	Ni = 3.4 Nb = 3.7	NA	NA	NA	NA
Peat Group 1F Analysis	Ni = 2.4 Nb = 3.5	NA	NA	NA	NA

*NA – Not available

High contrast Nb and Ni anomalies are evident in B-horizon soil over the Mountain Lake Diatreme (Figures 7 and 8). Weak Nb anomalies are also apparent along the southern shore of Mountain Lake and stronger anomalies extend 50 m west of the diatreme; these could reflect down-ice dispersal of ultramafic rock. Nickel anomalies also extend westward of the diatreme, and the anomaly pattern is similar to Ni in A-horizon soil in that the Ni concentration decreases toward the centre of the diatreme (cf. Figures 6 and 8).

A high contrast Nb anomaly in C-horizon till is situated over the northern part of the diatreme and weaker anomalies are evident over the entire width of the body (Table 4; Figure 9). High contrast Ni anomalies in till are stronger over the diatreme compared with Nb (Figure 10). As for the soil samples, there is decrease in Ni concentration in till toward the centre of the pipe. There is limited dispersion of Ni west of the pipe, but not to the south.

5 Buffalo Head Hills Orientation Surveys

Multimedia orientation surveys were conducted over buried kimberlite pipes in the Buffalo Head Hills to test the effectiveness of various sample media and analytical methods for detecting these pipes under moderate to very thick till cover. Sample media collected over a three-week period in July 2000 included white and black spruce-top twigs, ground-level spruce needles, willow twigs, aspen bark, A- and B-horizon soil, C-horizon till, and peat and subpeat sediments.

5.1 Geology of the Buffalo Head Hills

The ‘Buffalo Head Hills Terrane’ is located in north-central Alberta approximately 350 km northwest of Edmonton (Figure 2). The region is underlain by 2.0 to 2.3 Ga old Precambrian basement (Villeneuve at al., 1993) and Paleozoic and Mesozoic rocks of the Western Canada Sedimentary Basin that are up to 5000 metres thick. Cretaceous mudstones and sandstones that subcrop beneath the glacial sediment range in age from 80 to 100 Ma. The region was glaciated during the Laurentide ice advance and products of glacial retreat include ground moraine till and glaciofluvial and glaciolacustrine sediments up to 200 metres thick. The east-northeast trending Peace River Arch is a dominant asymmetrical structure in the Buffalo Head Hills Terrane.

The Alberta diamond joint venture consisting of Ashton Mining of Canada Inc., Alberta Energy Company Ltd., and Pure Gold Minerals Inc. began exploration for diamonds in the Buffalo Head Hills in late 1996. Exploration methods included airborne magnetics, followed by ground surveys, heavy mineral sampling, drilling, and mini-bulk and bulk sampling. Electromagnetic, gravity and seismic surveys have also proven effective for locating kimberlites beneath the glacial sediments. Since 1997, 74 targets have been drilled in the Buffalo Head Hills resulting in the discovery of 36 kimberlites, of which 23 are diamondiferous. The best grade thus far is from K252 with 66.2 carats per hundred tonnes.

Three pipes were chosen for orientation surveys in the Buffalo Head Hills (i.e., TQ155, K5 and K11) to test the effectiveness of different sample media and analytical methods for detecting the pipes. TQ155 and K5 subcrop under deep to moderately thick till on the east-sloping flank of the Buffalo Head Hills, whereas K11 subcrops under moderately thick till in the wetter Loon River Lowlands (Figure 11; Table 1). Luvisolic, gleysolic, Brunisolic and organic soils mantle till over the areas sampled. Dark brown to black A-horizon soils are slightly acidic and somewhat more conductive than those at Mountain Lake (cf. Tables 2 and 5). The B-horizon soils over TQ155, K5 and K11 are similar to those at Mountain Lake in terms of colour and low conductivity, but are more alkaline, perhaps due to a higher carbonate content in the parent material till. The olive colour (Fe^{2+}) and higher moisture content of the K11 B-horizon soil could reflect a more reducing environment in the Loon River Lowlands. The fines content of B-horizon soils over the three pipes remains relatively uniform at 9% to 10% (Table 5). In comparison with the B-horizon soils, the C-horizon till is more alkaline and conductive and contains somewhat more fines and less moisture (Table 5). In comparison with Mountain Lake, the C-horizon tills over the three pipes in the Buffalo Head Hills are of similar colour, but they are more alkaline and conductive (cf. Tables 2 and 5).

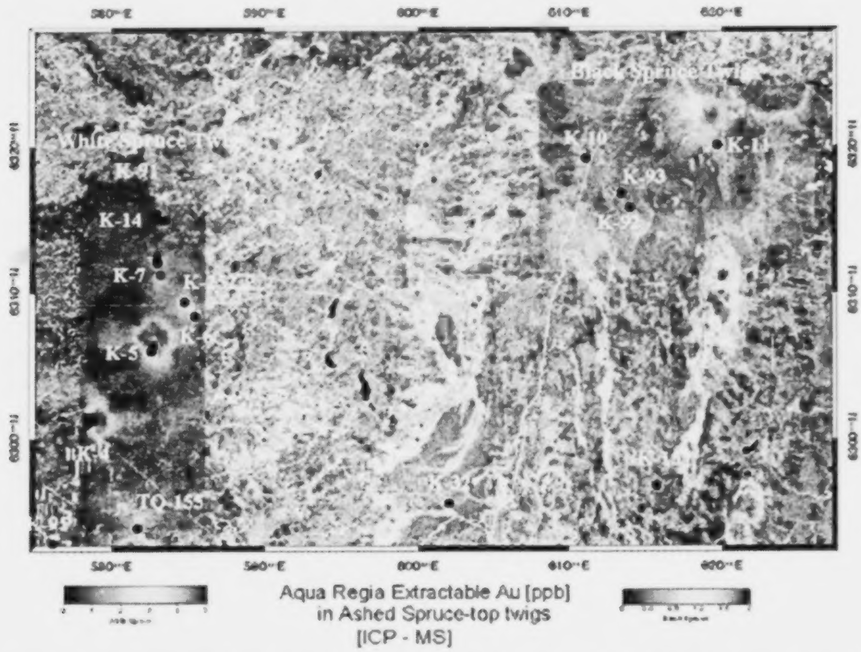

Figure 11. Distribution of aqua regia extractable Au in ashed black and white spruce-top twigs over the Buffalo Head Hills kimberlite pipes.

Table 5. Characteristics of sample media collected over kimberlites (Buffalo Head Hills). (All numbers are median values).

Sample Media	Colour	pH	Conductivity (µS/cm)	% <63 µm	% Moisture
A-horizon (TQ155)	dark brown to black	5.5	60	NA	NA
A-horizon (K5)	dark brown to black	6.0	56	NA	NA
A-horizon (K11)	dark brown to black	5.9	60	NA	NA
B-horizon (TQ155)	brown (10YR 4/3)	6.2	8	10	11.4
B-horizon (K5)	brown (10YR 3.5/3)	6.4	7	9.2	12.5
B-horizon (K11)	light olive brown (2.5Y 5/4)	6.6	7	8.9	14.1
C-horizon (TQ155)	very dark greyish brown (10YR 3/2)	9.1	41	9.2	10.8
C-horizon (K5)	very dark greyish brown (10YR 3/2)	9.1	38	10.3	11.9
C-horizon (K11)	dark greyish brown (10YR 4/2.5)	9.0	50	11.9	12.9

In descending order of abundance, over story on the east slope of the Buffalo Head Hills consists of trembling aspen (*Populus tremuloides*), white spruce (*Picea glauca*) and pussy willow (*Salix discolour*). In the Loon River Lowlands, the over story consists mainly of black spruce (*Picea mariana*) with lesser white birch (*Betula papyrifera*) and mountain alder (*Alnus tenuifolia*).

5.2 Results of the Multimedia Orientation Surveys

Sample media collected over kimberlite pipes in the Buffalo Head Hills included plant tissue, A- and B-horizon soil, C-horizon till, peat, and subpeat sediments. Proportional dots for Ni and Nb in plant tissue are presented, followed by Ni and Nb plots for A- and B-horizon soil and C-horizon till. Subsequently, Ni and Nb proportional dots for peat and subpeat sediments are described.

5.2.1 Geochemical Response in Plant Tissue Over Buried Kimberlite Pipes

Relative to background concentrations, many of the elements in the three associations identified are anomalous in white and black spruce-top twigs over kimberlite pipes in the Buffalo Head Hills (Table 4; Figures 11, 12, 14 and 16). Of all the elements, Au shows the highest contrast, particularly over K5 (Table 4; Fig 11). Elements associated with Au are Te, Se and Ag. Low contrast P anomalies are evident in white spruce-top twigs over kimberlite pipes on the eastern slope of the Buffalo Head Hills (Figure 12), but there is poor correlation with the P content of the pipes themselves (cf. Figures 12 and 13). Very low contrast P anomalies in black spruce-top twigs are spatially associated with deeply buried pipes in the Loon River Lowlands (Figure 12). Low contrast Ni anomalies are spatially associated with some of the pipes, but there is no correlation between the Ni content of the twigs and kimberlites (cf. Figures 14 and 15). Low contrast Nb anomalies are evident over the K5, K6, K7 and K11 pipes, which contain appreciable amounts of Nb (cf. Figures 16 and 17). The extensive Nb anomalies to the southeast of K4 and west of K11 are centred on gravel roads. The gravel for these roads is quarried 5 km to the northwest of K4, and probable kimberlite detritus in the gravel could be the source of Nb in the spruce trees along the roads.

Black spruce needles were collected at ground level over K11, ashed and analyzed by Group 1F. Elements from the CEA, IEA and TEA suites are anomalous over the buried pipe (Table 4). There is some overlap with elements that are anomalous in the black spruce-top twigs (i.e., Cs, Mn, V, Au, Nb and Sc). Very low contrast Nb anomalies are apparent directly over the pipe, whereas higher contrast Ni anomalies show no spatial association (Figures 18 and 19; Table 4).

5.2.2 Geochemical Response in Soil and Till Over Kimberlite Pipes

5.2.2.1 Soil and Till Over TQ155 (34 m of Till Cover)

Ground-level aspen (*Populus tremuloides*) bark and pussy willow (*Salix discolour*) twigs were collected over TQ155 for ashing and analysis. In comparison with the white spruce-top twigs collected over this pipe, there are considerably fewer anomalous elements in the aspen bark and willow twig samples (Table 3). There are more element enrichments with a spatial association to the pipe in the willow twigs than the aspen bark. The contrast shown by Nb in willow twigs is too low to place any confidence in anomaly patterns (Figure 20; Table 4), but two high contrast Ni anomalies are evident at the northern edge of the pipe (Figure 21). Nickel is also anomalous in white spruce-top twigs over TQ155. Phosphorus in aspen bark is weakly anomalous over TQ155, but Nb and Ni show no spatial association with the pipe (Figures 22 and 23), with most values close to usual background levels.

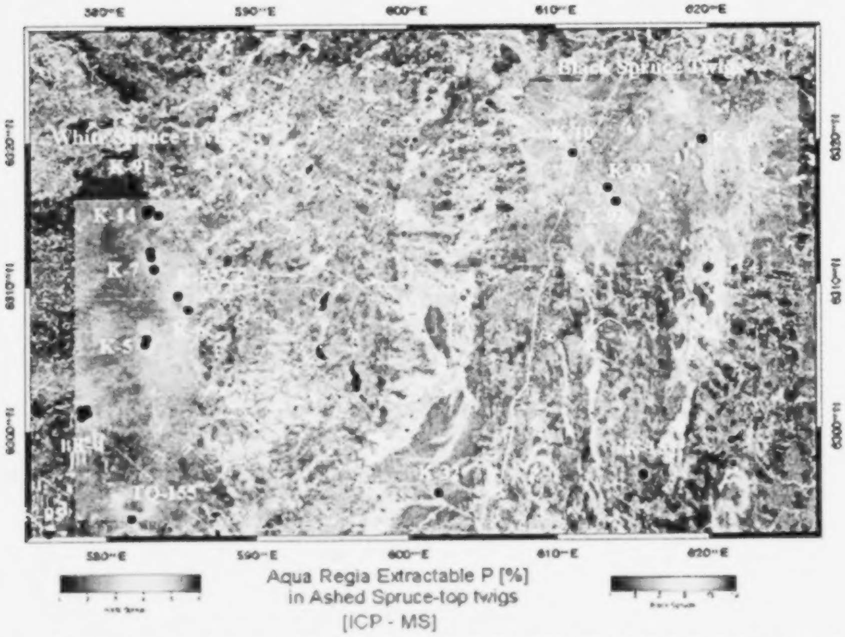

Figure 12. Distribution of aqua regia extractable P in ashed black and white spruce-top twigs over the Buffalo Head Hills kimberlite pipes.

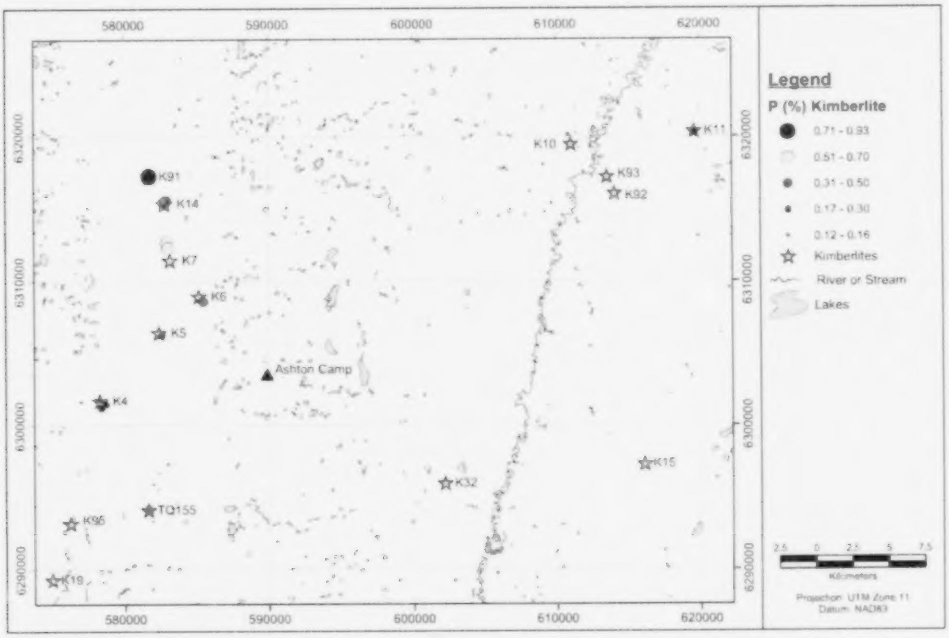

Figure 13. Distribution of total P in selected kimberlites from the Buffalo Head Hills.

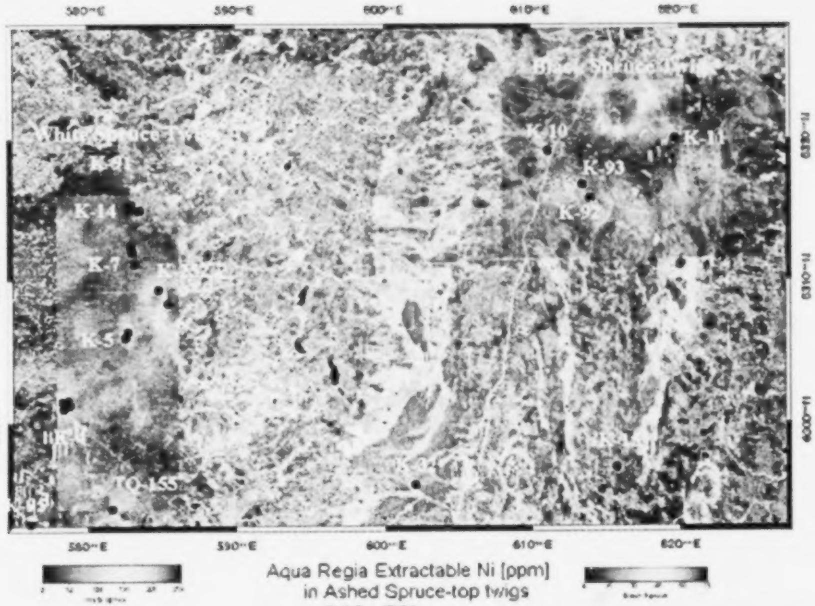

Figure 14. Distribution of aqua regia extractable Ni in ashed black and white spruce-top twigs over the Buffalo Head Hills kimberlite pipes.

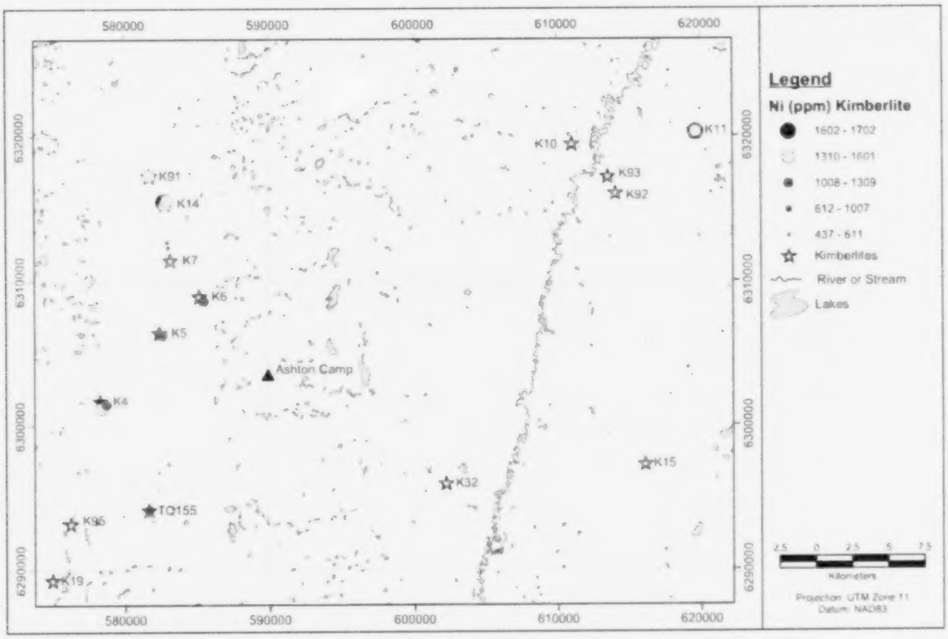

Figure 15. Distribution of total Ni in selected kimberlites from the Buffalo Head Hills.

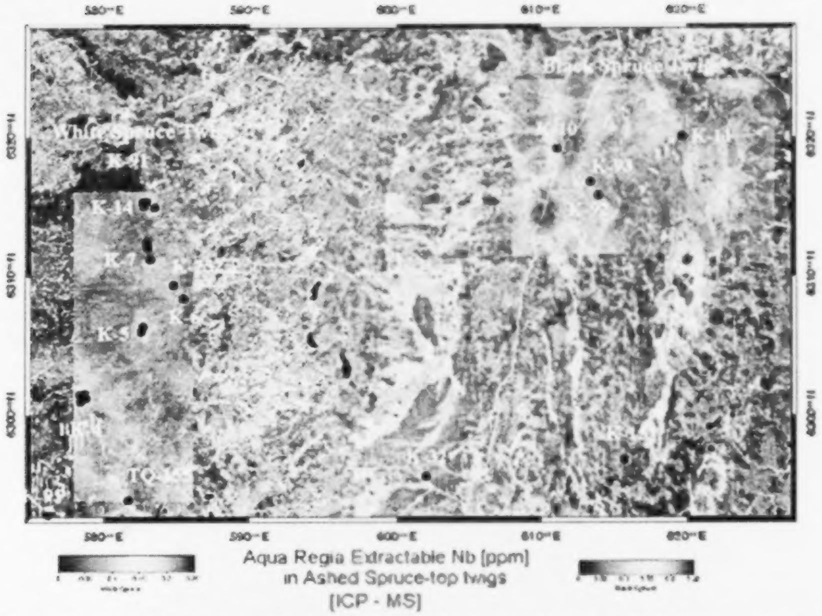

Figure 16. Distribution of aqua regia extractable Nb in ashed black and white spruce-top twigs over the Buffalo Head Hills kimberlite pipes.

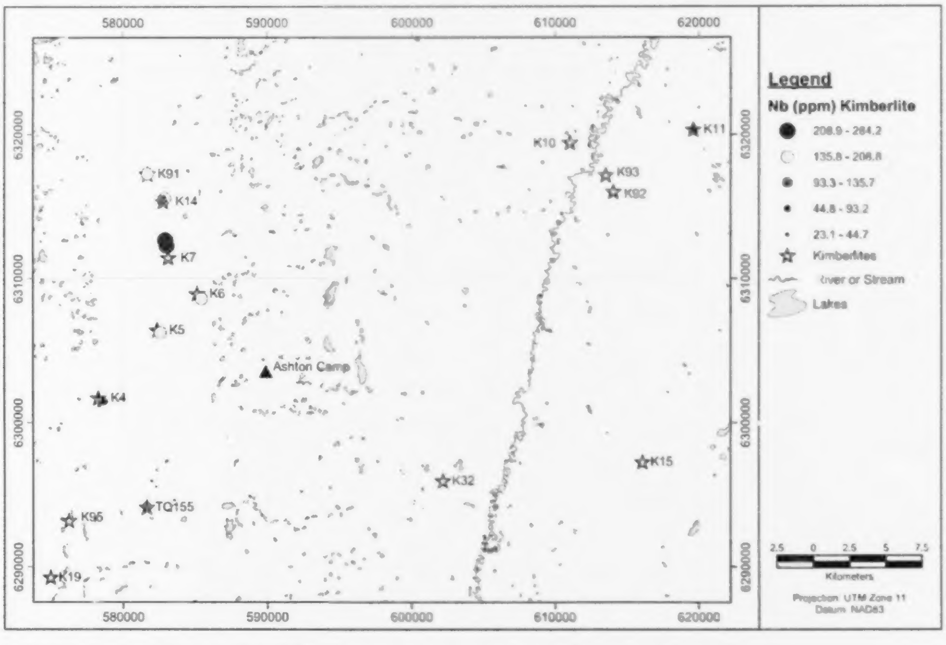

Figure 17. Distribution of total Nb in selected kimberlites from the Buffalo Head Hills.

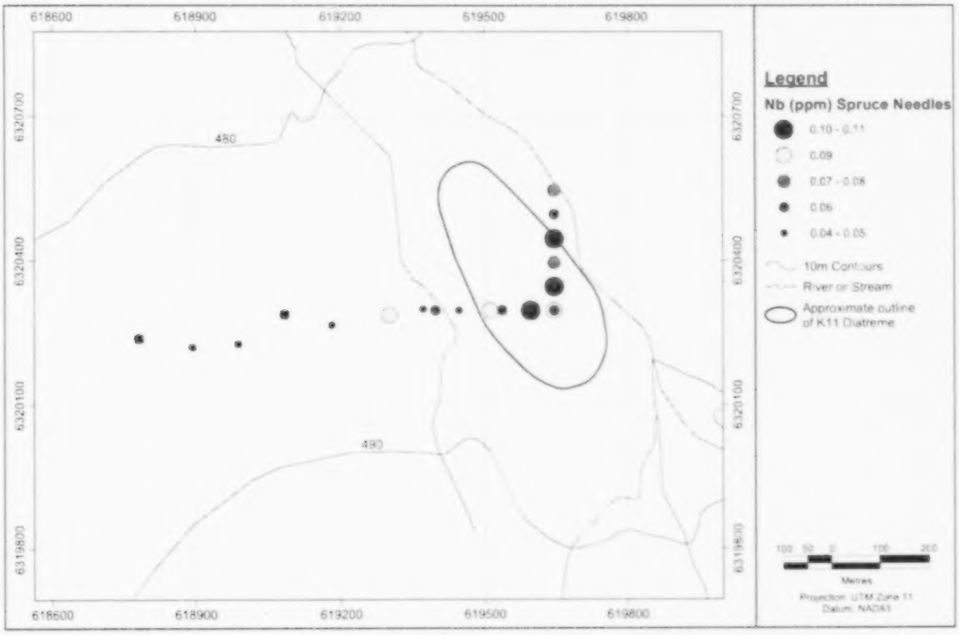

Figure 18. Distribution of aqua regia extractable Nb in ashed spruce needles over the till covered (13 m) K11 pipe in the Loon River lowland.

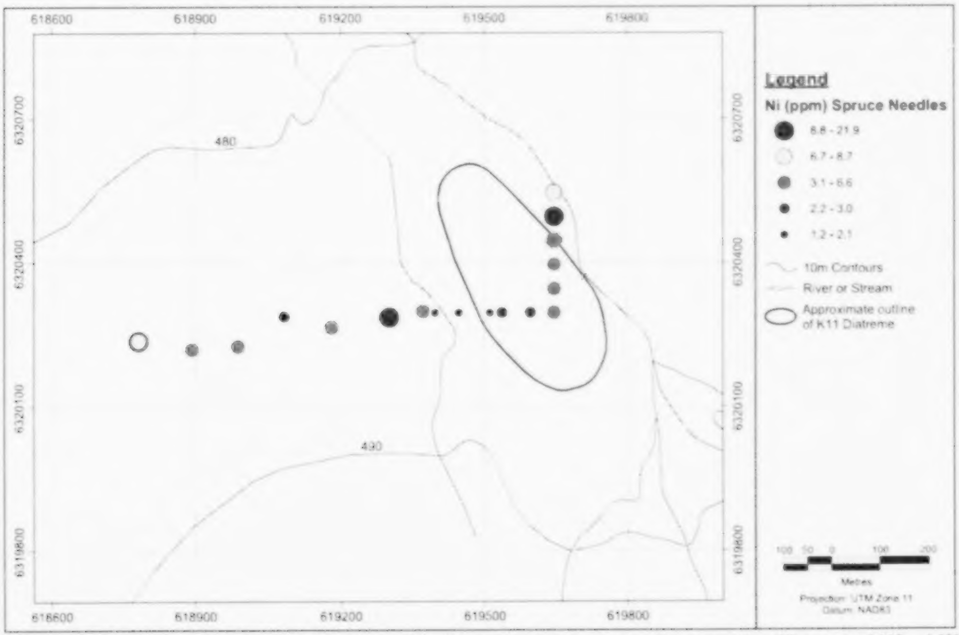

Figure 19. Distribution of aqua regia extractable Ni in ashed spruce needles over the till covered (13 m) K11 pipe in the Loon River lowland.

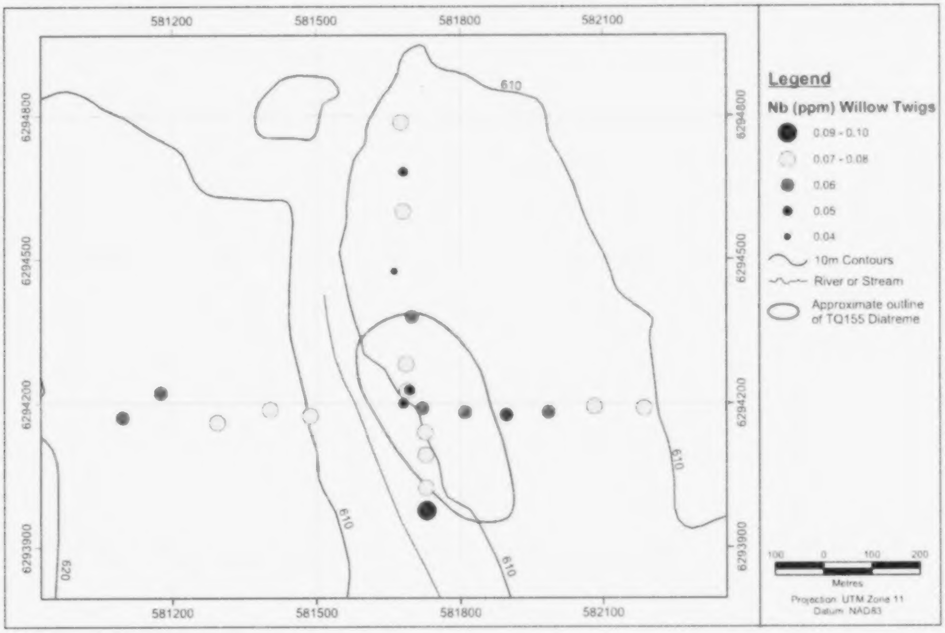

Figure 20. Distribution of aqua regia extractable Nb in ashed willow twigs over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

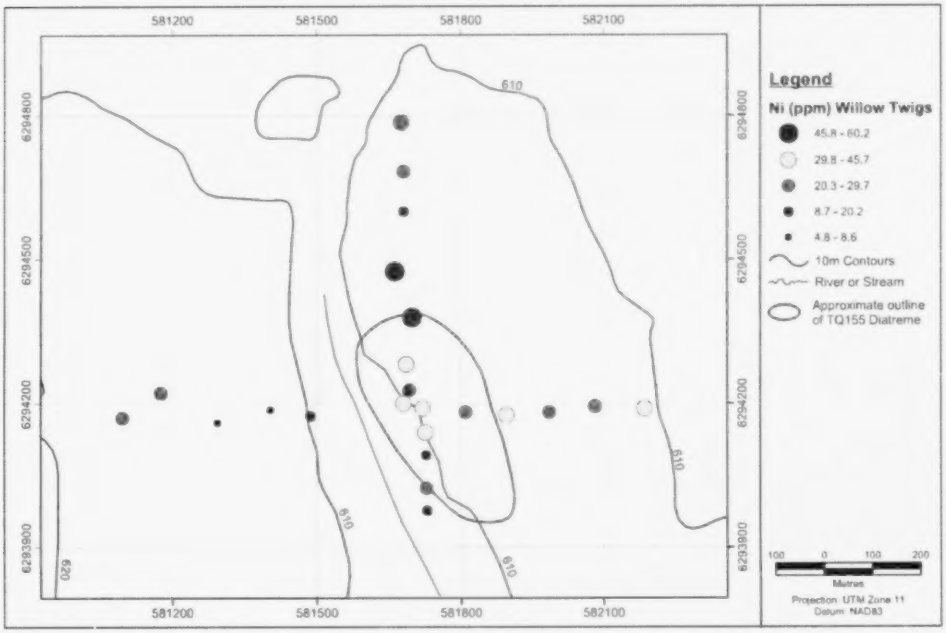

Figure 21. Distribution of aqua regia extractable Ni in ashed willow twigs over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

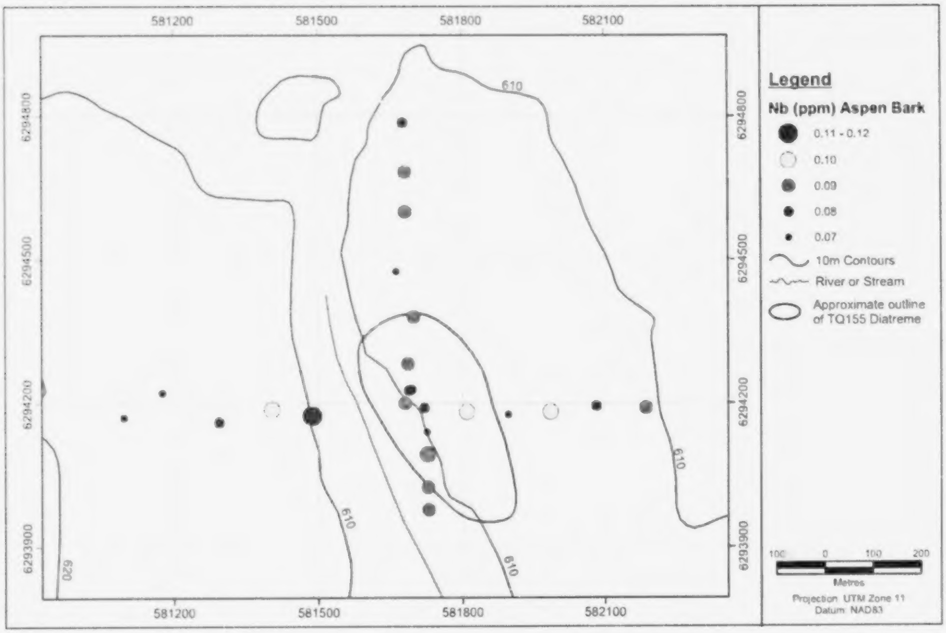

Figure 22 Distribution of aqua regia extractable Nb in ashed aspen bark over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

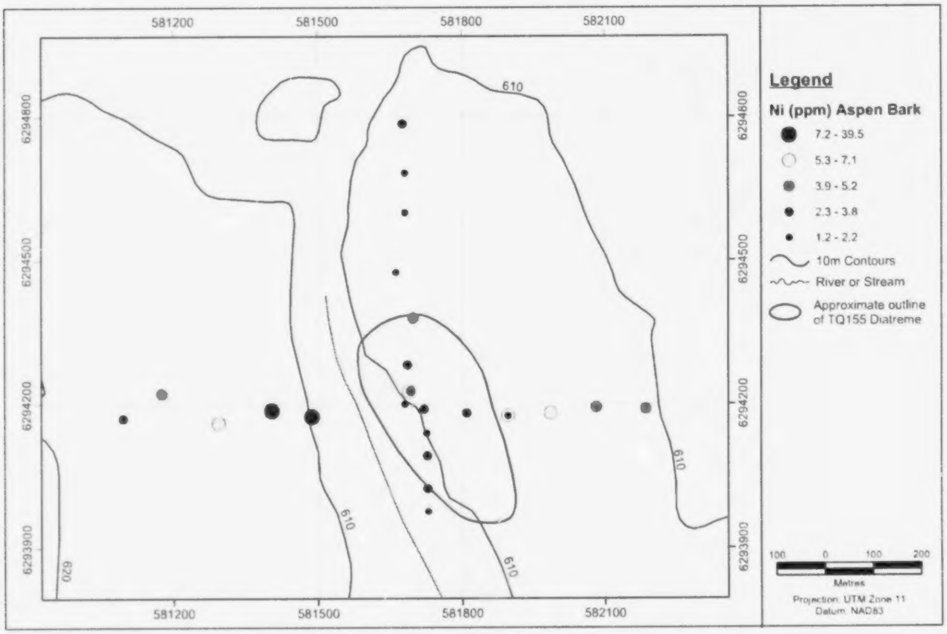

Figure 23 Distribution of aqua regia extractable Ni in ashed aspen bark over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

Despite that A-horizon soil is derived from the decay of plant tissue that is anomalous in certain elements over TQ155, the A-horizon soil is only anomalous in H^+ over TQ155. The reason for the increase of acidity over the deeply buried pipe is unclear, but if acid is generated by the buried kimberlite, the small hydrogen atom would have the best chance of migrating vertically through the 34 m of till. As indicated by Figures 24 and 25, the distribution of incompatible (Nb) and compatible (Ni) elements show no spatial correlation with the pipe despite the Ni anomalies in white spruce-top twigs.

As with the A-horizon soil, the Group 1F analysis of B-horizon soil produces few anomalies over TQ155 (Table 3). In addition to H^+, Group 1F extractable Nb is also anomalous over and adjacent to the pipe (Figure 26). The contrast shown by enzyme extractable Nb is over three times greater than that of the Group 1F Nb (Table 4; Figure 27), and the enzyme leach also reveals more anomalies in B-horizon soil over TQ155 (Table 3). The contrast for Group 1F and enzyme extractable Ni is low, and although anomaly patterns for both analytical methods are similar, there is no spatial association of Ni anomalies and the buried pipe (Figures 28 and 29).

Group 1F and enzyme analysis of the C-horizon till reveals more anomalies over TQ155 than the B-horizon soil (Table 3). As with the B-horizon soil, the enzyme leach yields more element anomalies in the till than the Group 1F analysis. Elements from the PEA, SEA and TEA suites are apparent by the enzyme leach (Table 3). There is considerable overlap of enzyme extractable elements in till with those in the white spruce-top twigs (Au, Se, Sc and Ni). Low contrast, Group 1F Nb anomalies are evident over and adjacent to the pipe, and higher contrast, single-point, enzyme extractable Nb anomalies are apparent on the north-south line over the pipe (Figures 30 and 31; Table 4). Both Group 1F and enzyme extractable Ni anomalies are evident on the north-south line over the pipe (Figures 32 and 33).

5.2.2.2 Soil and Till Over K5 (0-14 m of Till Cover)

The Group 1F analysis of A-horizon soil over K5 reveals TEA, PEA and SEA anomalies over and adjacent to K5 (Table 3). It is not surprising that Au is anomalous in the A-horizon soil considering the high contrast shown by this element in white spruce-top twigs over K5 (Table 4). Other elements in A-horizon soil that overlap with those in the spruce twigs include Nb, Rb, Cr, Ti and Ni. Both Nb and Ni in A-horizon soil are anomalous in one sample directly over K5, but the Ni anomalies continue northward and downslope of the pipe (Figures 34 and 35). This could reflect the greater chemical mobility of Ni in this environment and its ability to move downslope in an up-ice direction. The weakly bound form of Ni in the soil would facilitate its uptake by plants and subsequent recycling to the A-horizon soil.

Many Group 1F extractable elements are anomalous in B-horizon soil over and adjacent to K5 (Table 3). In contrast, only enzyme extractable Ni shows a spatial association with K5. Group 1F extractable Nb is anomalous over the southern half of K5 and also 500 m down-ice of the pipe, whereas the anomaly pattern shown by enzyme extractable Nb shows no relation to the pipe (Figures 36 and 37). The patterns for Group 1F and enzyme extractable Ni are similar in that one sample is anomalous directly over the pipe with no dispersion down-ice (Figures 38 and 39).

In contrast to the B-horizon soil, many more enzyme extractable elements are anomalous in C-horizon till over and adjacent to K5 (Table 3), and many of the same elements are anomalous in the white spruce-top twigs over K5 (Sc, Re, Cs, Ti, Nb, Rb, Y, Fe, Ni, Ce, La and Co). The anomaly pattern shown by Group 1F extractable Nb in the till is similar to that of the B-horizon, where there is dispersion of Nb to the south of the pipe (Figure 40). Unlike the B-horizon, enzyme extractable Ni in the till is anomalous over and down-ice to the south of K5 (Figure 41). It is unclear why the enzyme leach detects this dispersion pattern in the till and not in the B-horizon soil. As with the B-horizon soil, both the Group 1F and enzyme extractable Ni are anomalous directly over K5, and there is no dispersion of Ni to the south (Figures 42 and 43).

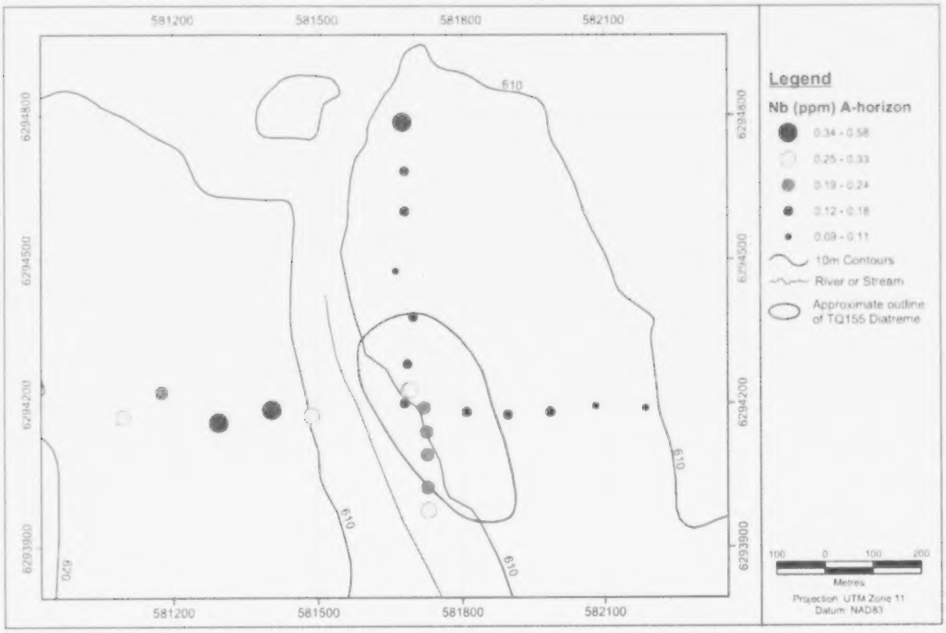

Figure 24. Distribution of aqua regia extractable Nb in –200 µ m A-horizon soil over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

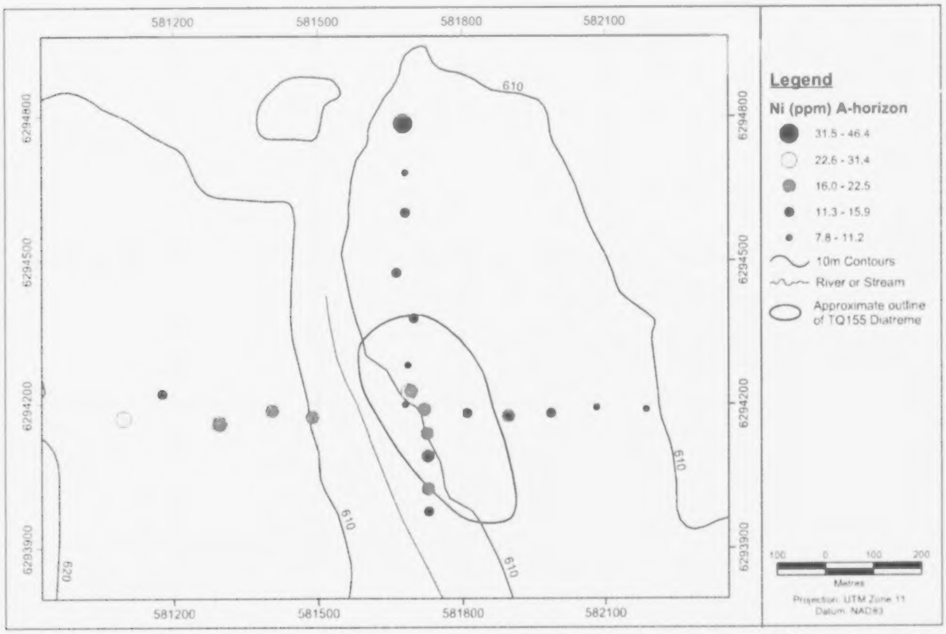

Figure 25. Distribution of aqua regia extractable Ni in –200 µ m A-horizon soil over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

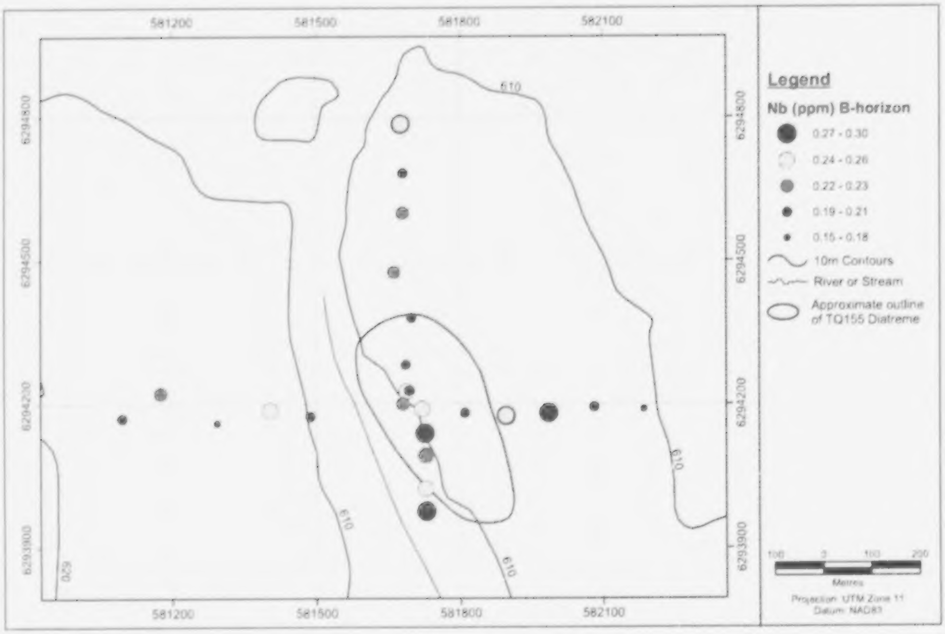

Figure 26. Distribution of aqua regia extractable Nb in –63 μ m B-horizon soil over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

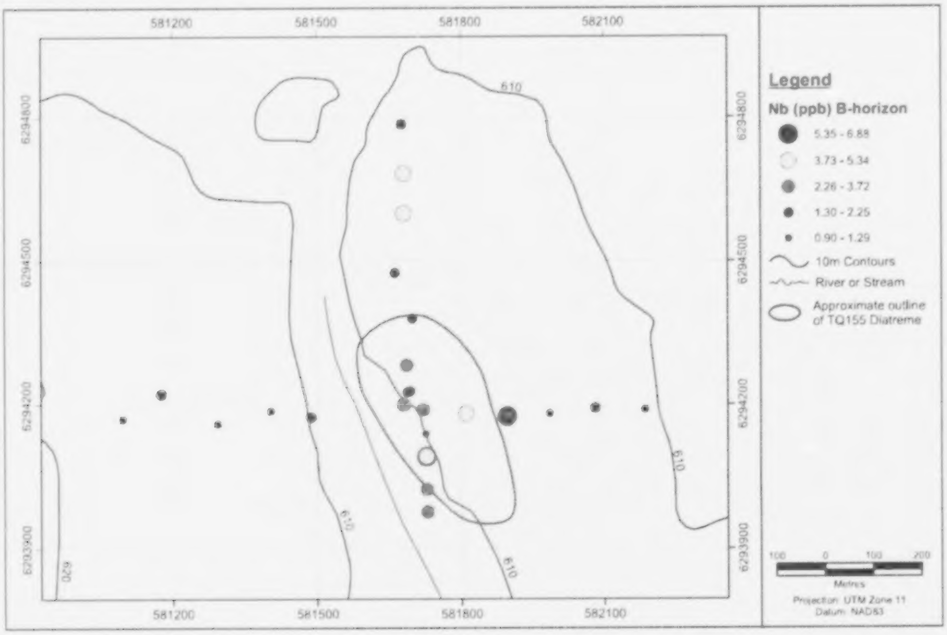

Figure 27. Distribution of enzyme extractable Nb in –63 μ m B-horizon soil over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

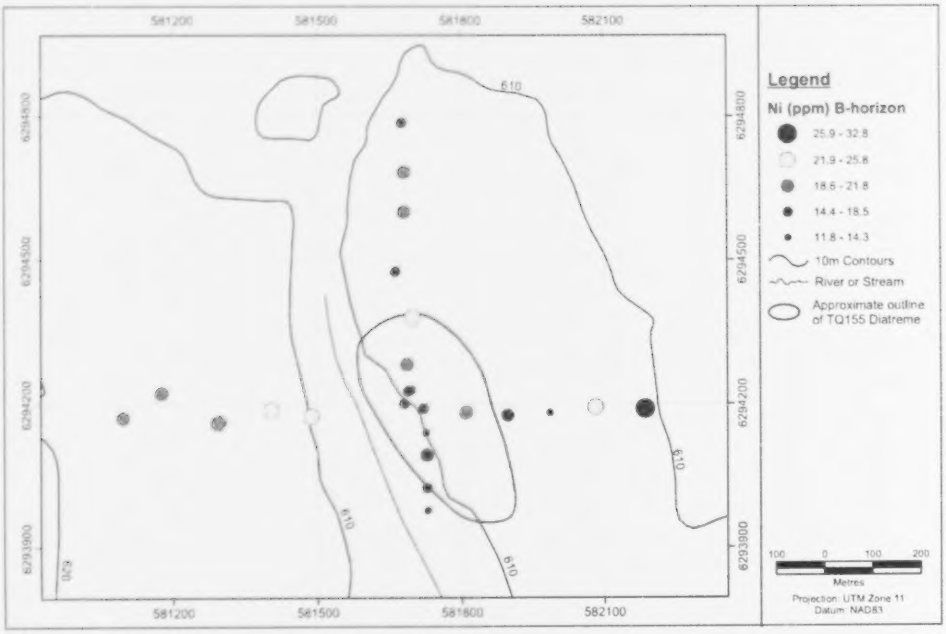

Figure 28. Distribution of aqua regia extractable Ni in –63 µ m B-horizon soil over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

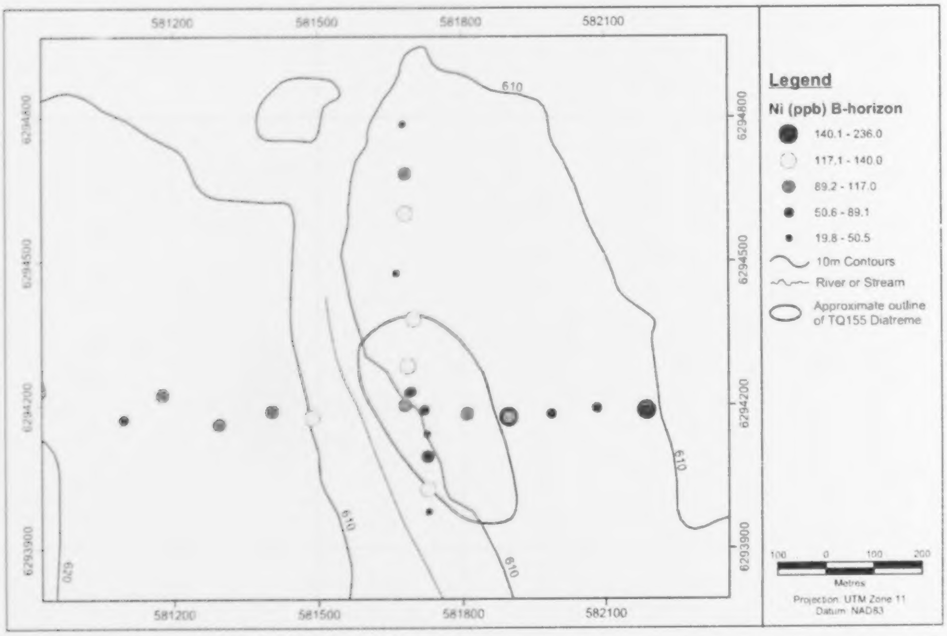

Figure 29. Distribution of enzyme extractable Ni in –63 µ m B-horizon soil over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

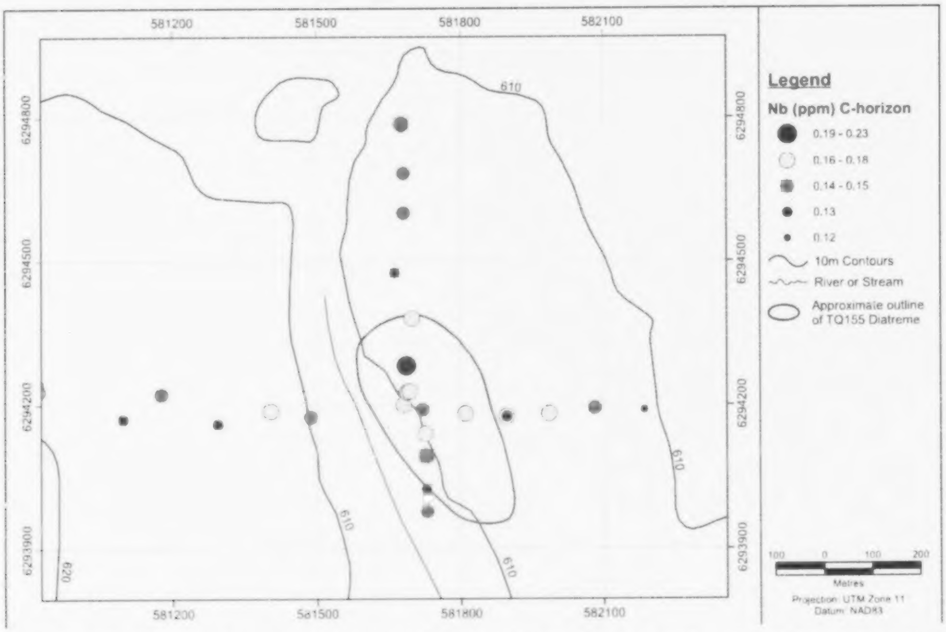

Figure 30. Distribution of aqua regia extractable Nb in –63 µ m C-horizon soil over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

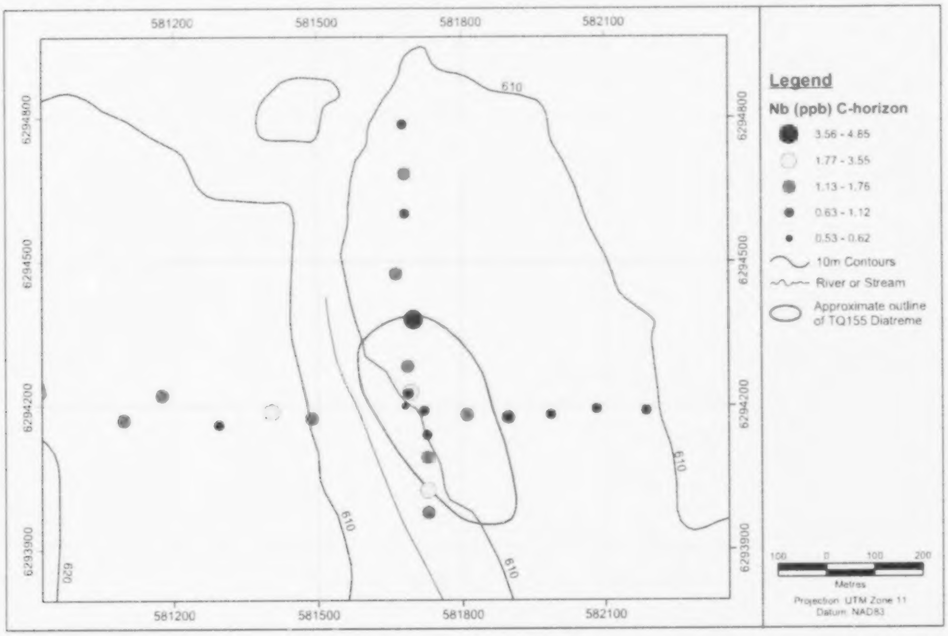

Figure 31. Distribution of enzyme extractable Nb in –63 µ m C-horizon soil over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

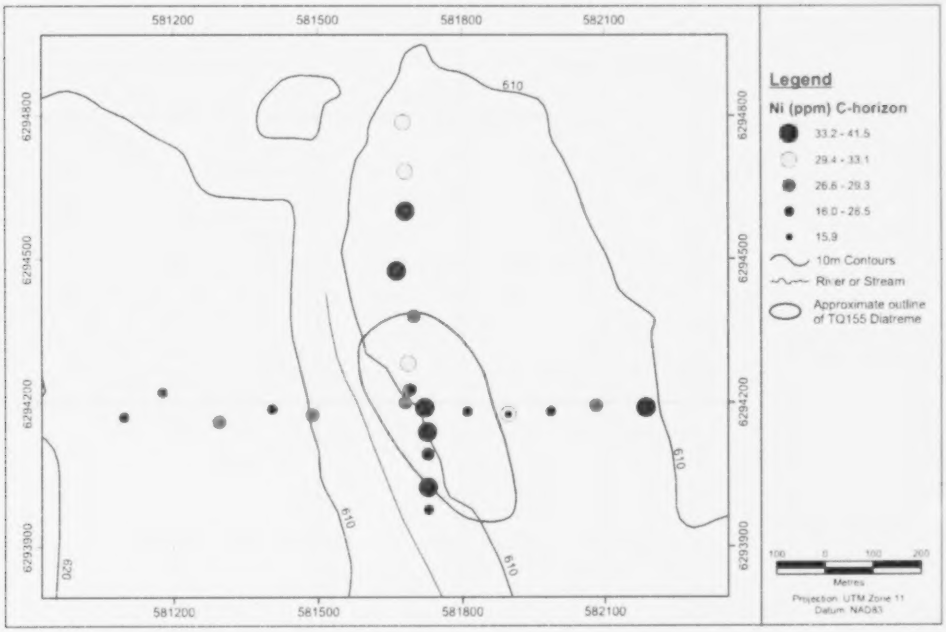

Figure 32. Distribution of aqua regia extractable Ni in –63 µ m C-horizon till over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

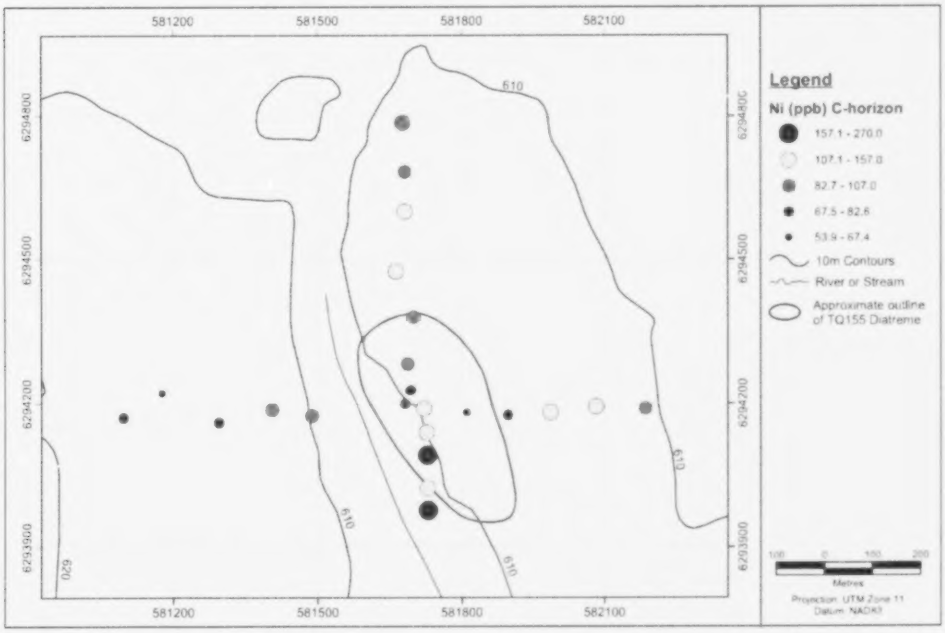

Figure 33. Distribution of enzyme extractable Ni in –63 µ m C-horizon till over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

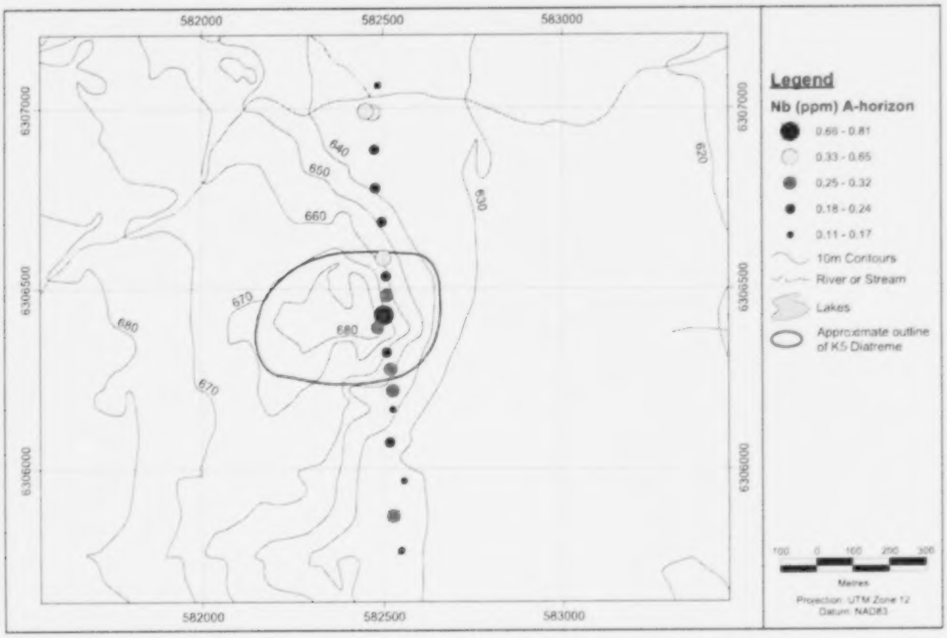

Figure 34. Distribution of aqua regia extractable Nb in –200 µ m A-horizon soil over the till-covered (0-14 m) K5 pipe in the Buffalo Head Hills.

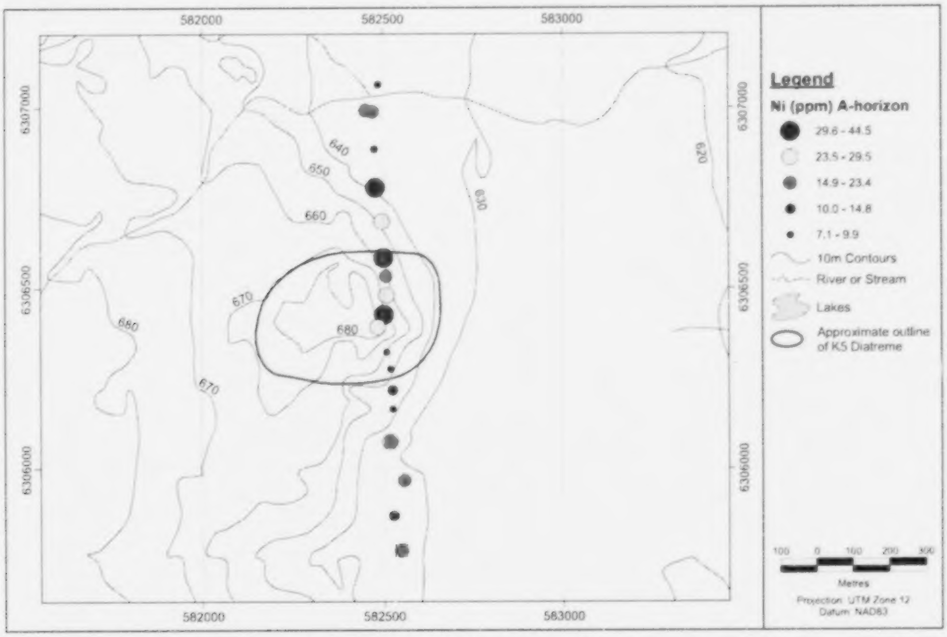

Figure 35. Distribution of aqua regia extractable Ni in –200 µ m A-horizon soil over the till-covered (0-14 m) K5 pipe in the Buffalo Head Hills.

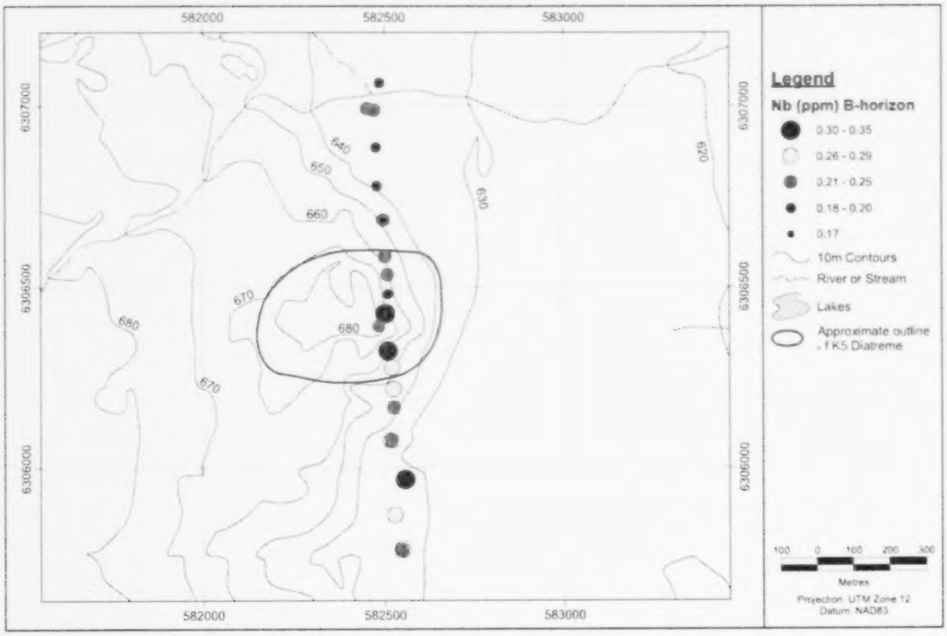

Figure 36. Distribution of aqua regia extractable Nb in –63 μ m B-horizon soil over the till-covered (0-14 m) K5 pipe in the Buffalo Head Hills.

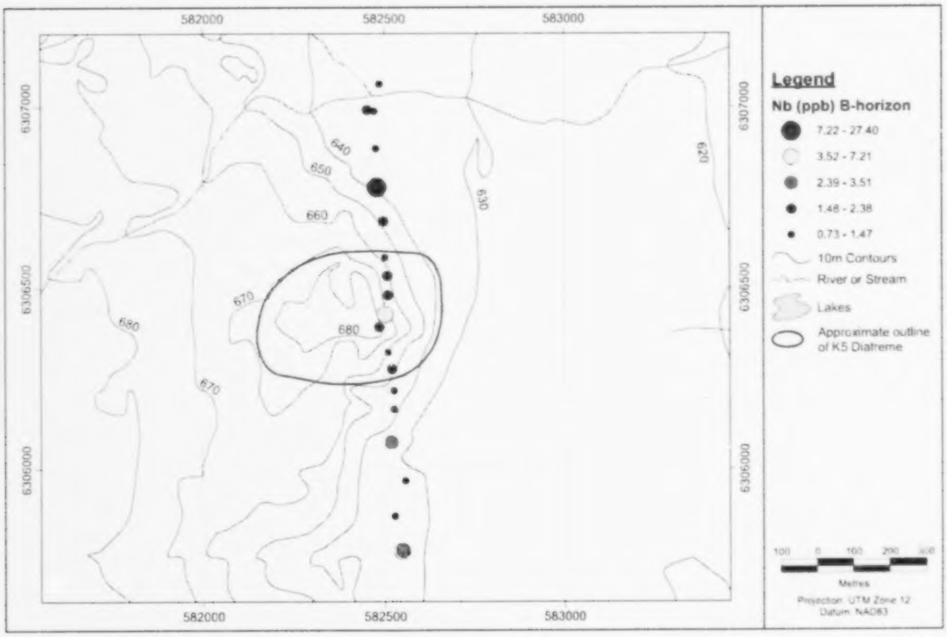

Figure 37. Distribution of enzyme extractable Nb in –63 μ m B-horizon soil over the till-covered (0-14 m) K5 pipe in the Buffalo Head Hills.

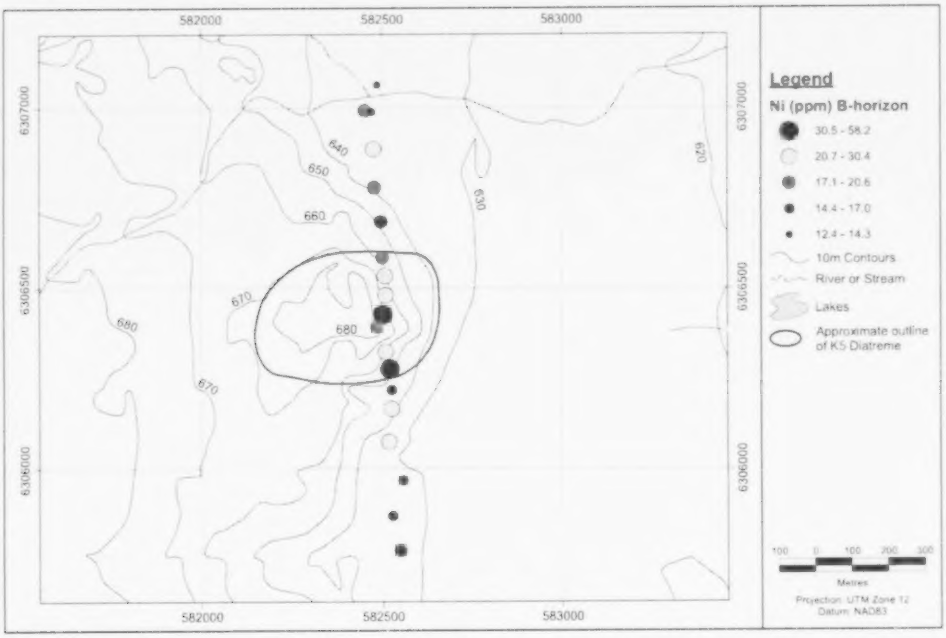

Figure 38. Distribution of aqua regia extractable Ni in –63 µ m B-horizon soil over the till-covered (0-14 m) K5 pipe in the Buffalo Head Hills.

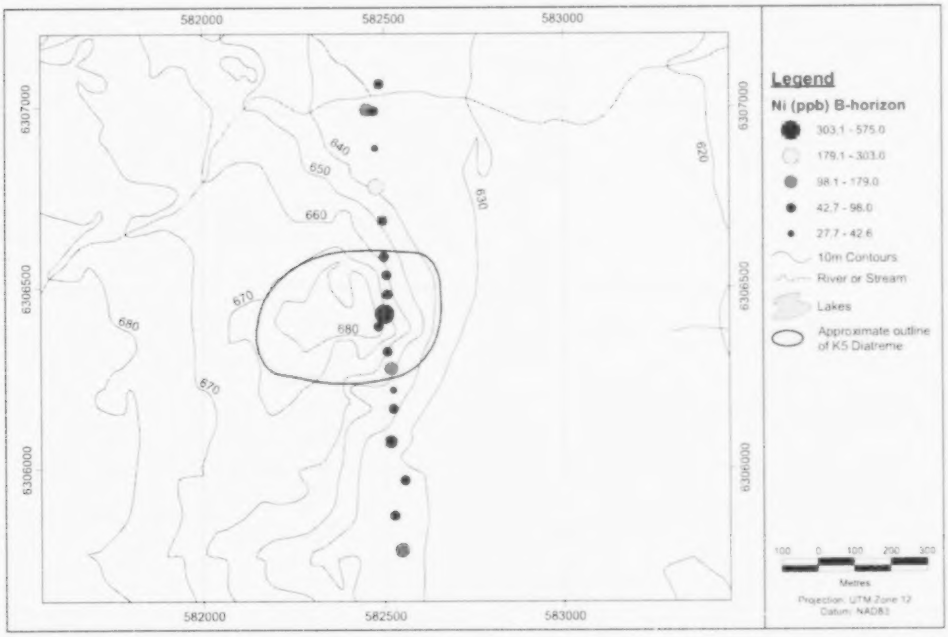

Figure 39. Distribution of enzyme extractable Ni in –63 µ m B-horizon soil over the till-covered (0-14 m) K5 pipe in the Buffalo Head Hills.

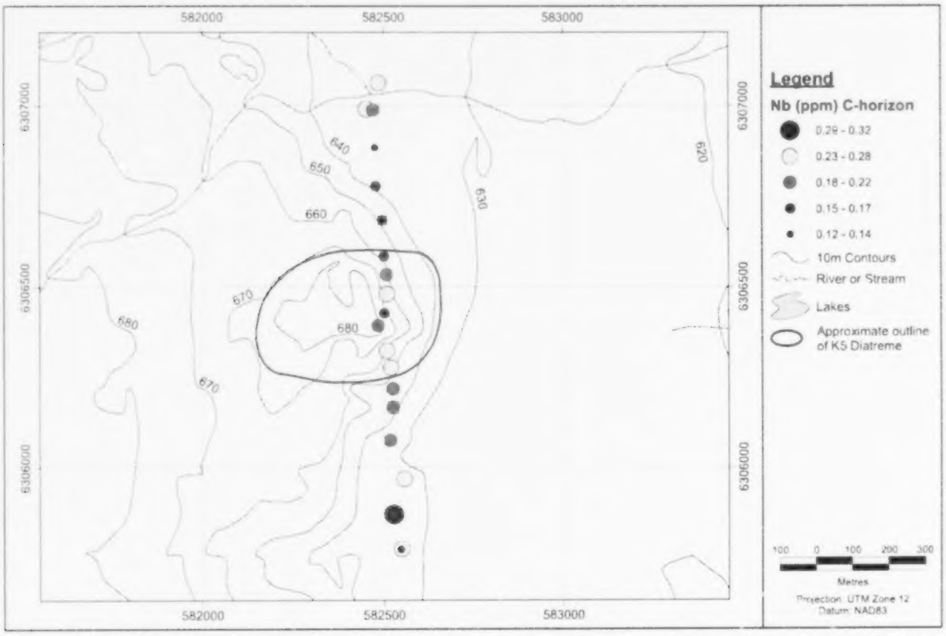

Figure 40. Distribution of aqua regia extractable Nb in –63 µ m C-horizon till over the till-covered (0-14 m) K5 pipe in the Buffalo Head Hills.

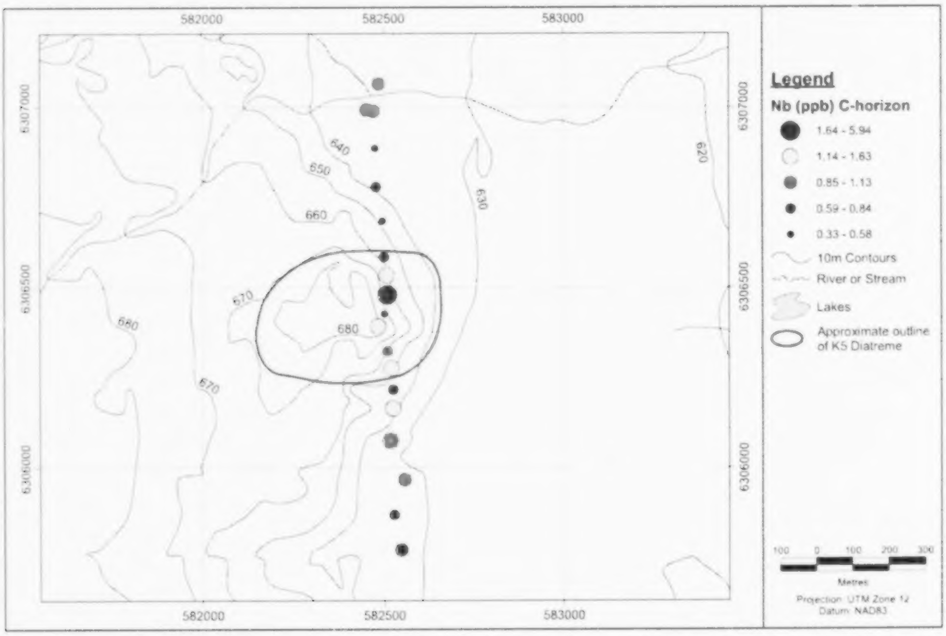

Figure 41. Distribution of enzyme extractable Nb in –63 µ m C-horizon till over the till-covered (0-14 m) K5 pipe in the Buffalo Head Hills.

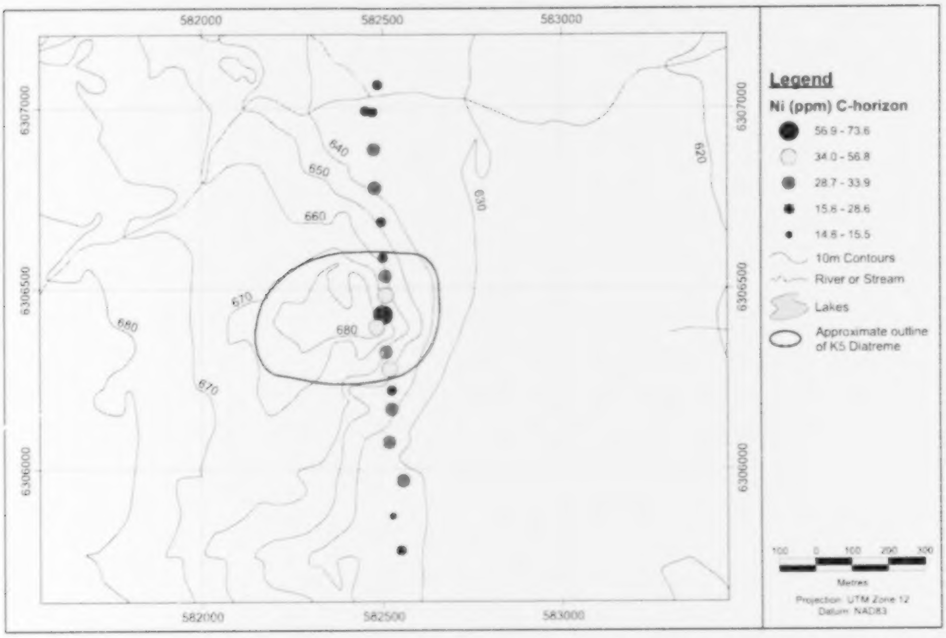

Figure 42. Distribution of aqua regia extractable Ni in –63 µ m C-horizon till over the till-covered (0-14 m) K5 pipe in the Buffalo Head Hills.

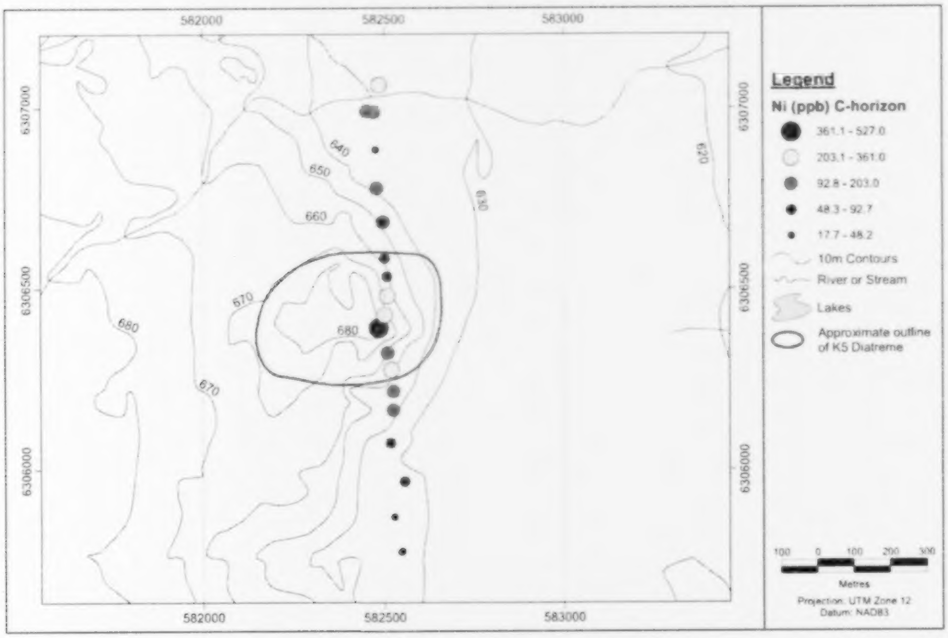

Figure 43. Distribution of enzyme extractable Ni in –63 µ m C-horizon till over the till-covered (0-14 m) K5 pipe in the Buffalo Head Hills.

5.2.2.3 Soil and Till Over K11 (13 m of Till Cover)

As with the other kimberlite pipes, soils and till over K11 are also anomalous in elements from the PEA, SEA and TEA suites (Table 3). Group 1F extractable Nb and Ni are erratically distributed in A-horizon soil over the K11 study area and show no spatial correlation with the buried pipe (Figures 44 and 45). In this case, the pipe could be detected by plotting the distribution of H^+ Se, Re, Na, Sn or S.

As with the B-horizon soil at K5, Group 1F analysis reveals more elements that are anomalous over K11 than the enzyme leach (Table 3). In contrast to the other pipes, the moisture content and percentage of fines (-63 µm) increases over K11. Like the A-horizon, H^+ and Group 1F extractable Re and Se show the highest contrast over the pipe. Group 1F extractable Nb is anomalous over the southern part of the pipe, but enzyme extractable Nb is erratic and shows no spatial association to K11 (Figures 46 and 47). In a similar sense, Group 1F extractable Ni is anomalous over and adjacent to the pipe, whereas enzyme extractable Ni appears to be depleted (Figures 48 and 49). Positive anomalies over the pipe could be realized by plotting enzyme extractable Mo, S or Mn. (Table 3).

As with the C-horizon till at K5, more enzyme extractable elements are anomalous over K11 than Group 1F extractable elements. Like the B-horizon soils, H^+ and TEA elements show the highest contrast anomalies over K11, and the moisture content and percentage of fines increases over the pipe. In contrast to the B-horizon soil, Group 1F extractable Nb is not anomalous over the pipe, but enzyme extractable Nb is (Figures 50 and 51). Group 1F extractable Ni is more erratically distributed compared with that of the B-horizon, but enzyme extractable Ni shows a similar depletion over the pipe (Figures 52 and 53).

5.2.3 Geochemical Response in Peat and Sub-Peat Sediments Over Kimberlite Pipes

Peat and subpeat sediments were sampled at 50 m intervals from a bog over TQ155 to test the effectiveness of these media for detecting the buried pipe. Peat and subpeat sediments were obtained from the base of the bog (200-400 cm depth) using a Hiller Borer. The pH of the bog water was measured at each sample site using a Horiba pH meter.

As indicated in Table 3, many elements of the PEA, SEA and TEA suites are anomalous in peat and subpeat sediments over and adjacent to TQ155. Anomaly contrast is somewhat higher for enzyme extractable elements in the subpeat sediments compared with the same elements extracted by the Group 1F analysis. The H+ content of the bog water and subpeat sediments increases over and adjacent to TQ155 (Table 3).

Low contrast, Group 1F extractable Nb and Ni anomalies in peat are anomalous over the northwestern part of TQ155 (Figures 54 and 55). In the subpeat sediments, Group 1F extractable Nb appears to be depleted over the buried pipe, and the anomaly pattern shown by enzyme extractable Nb bears no spatial relationship to TQ155 (Figures 56 and 57). In contrast, both Group 1F and enzyme extractable Ni are anomalous over and adjacent to TQ155, but the contrast shown by the enzyme leach is twice that of the Group 1F analysis (Table 4; Figures 58 and 59).

6 Birch Mountains Orientation Survey

A multimedia orientation survey was conducted over the Legend Kimberlite Pipe to test the effectiveness of various sample media and analytical methods for detecting kimberlites in the Birch Mountains under moderately thick till overburden. Sample media collected over a one-week period in August 2000 included A- and B-horizon soil and C-horizon till and spruce needles.

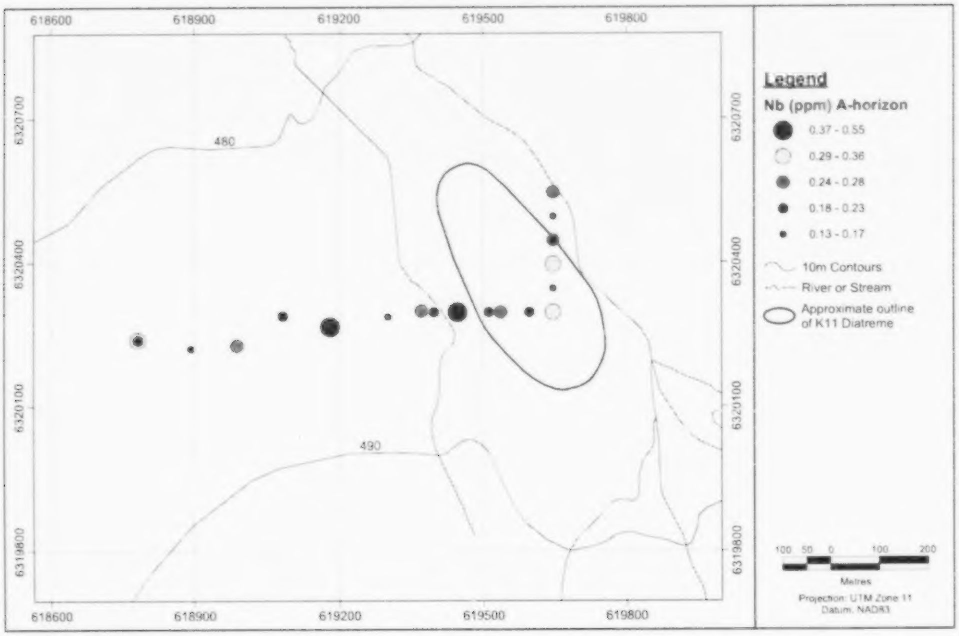

Figure 44. Distribution of aqua regia extractable Nb in –200 µ m A-horizon soil over the till-covered (13 m) K11 pipe in the Loon River lowland.

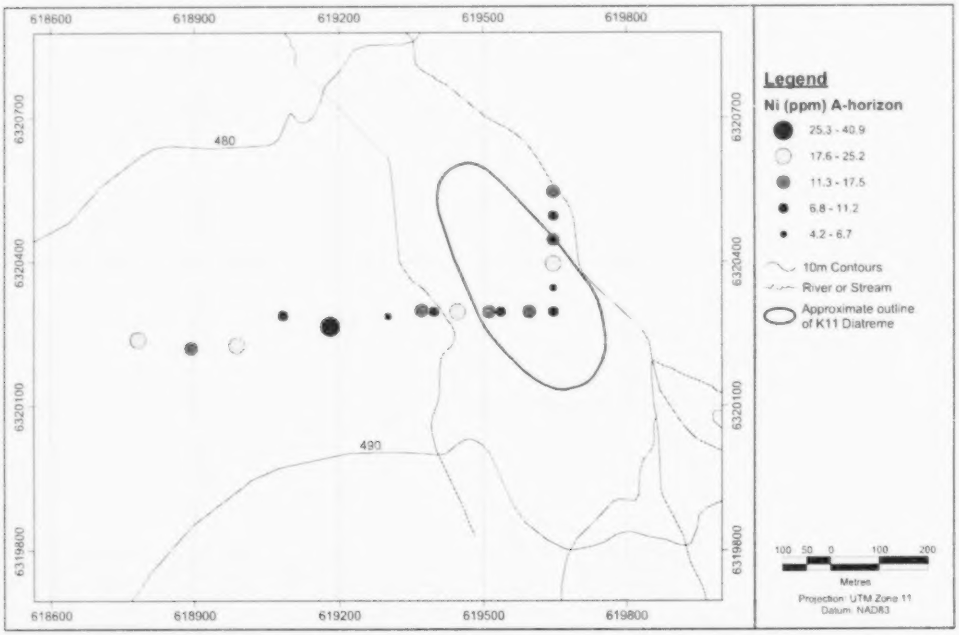

Figure 45. Distribution of aqua regia extractable Ni in –200 µ m A-horizon soil over the till-covered (13 m) K11 pipe in the Loon River lowland.

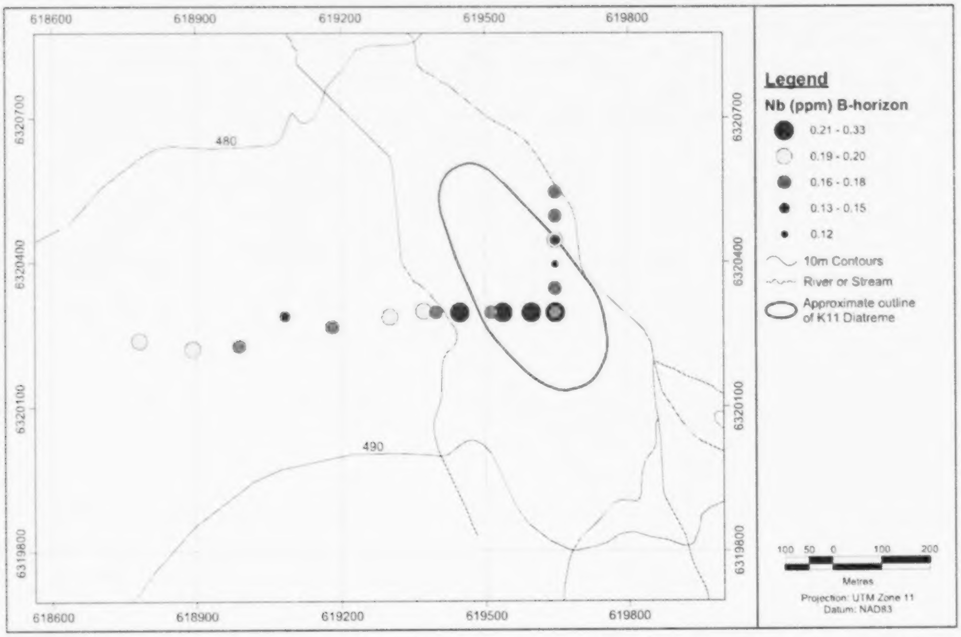

Figure 46. Distribution of aqua regia extractable Nb in –63 µ m B-horizon soil over the till-covered (13 m) K11 pipe in the Loon River lowland.

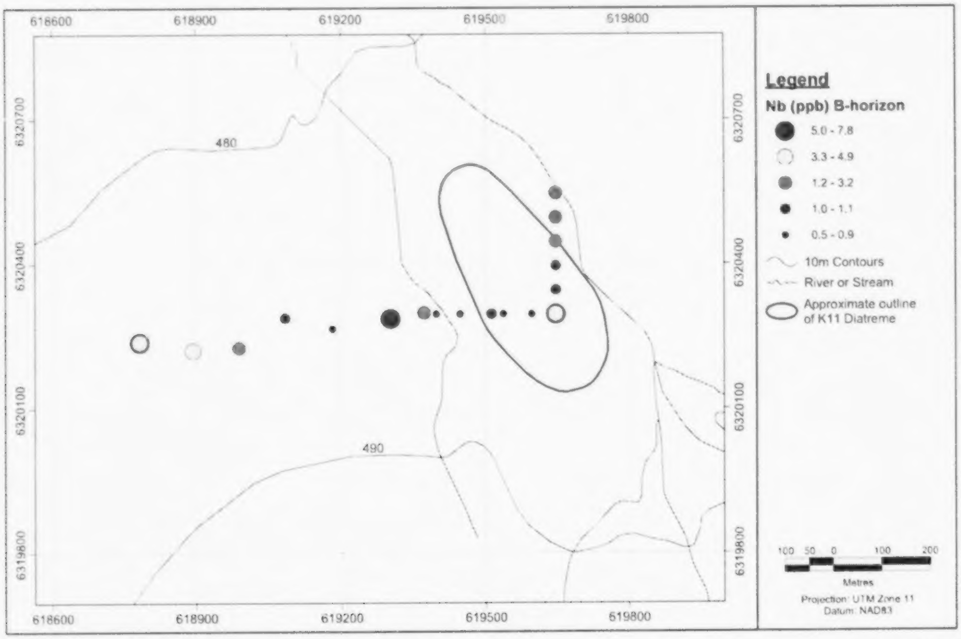

Figure 47. Distribution of enzyme extractable Nb in –63 µ m B-horizon soil over the till-covered (13 m) K11 pipe in the Loon River lowland.

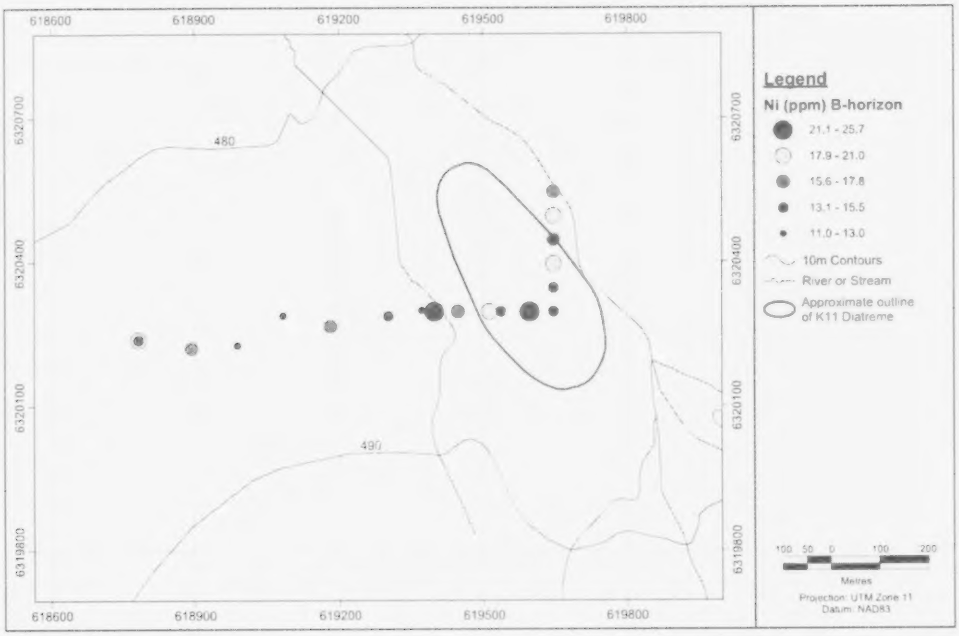

Figure 48. Distribution of aqua regia extractable Ni in –63 µ m B-horizon soil over the till-covered (13 m) K11 pipe in the Loon River lowland.

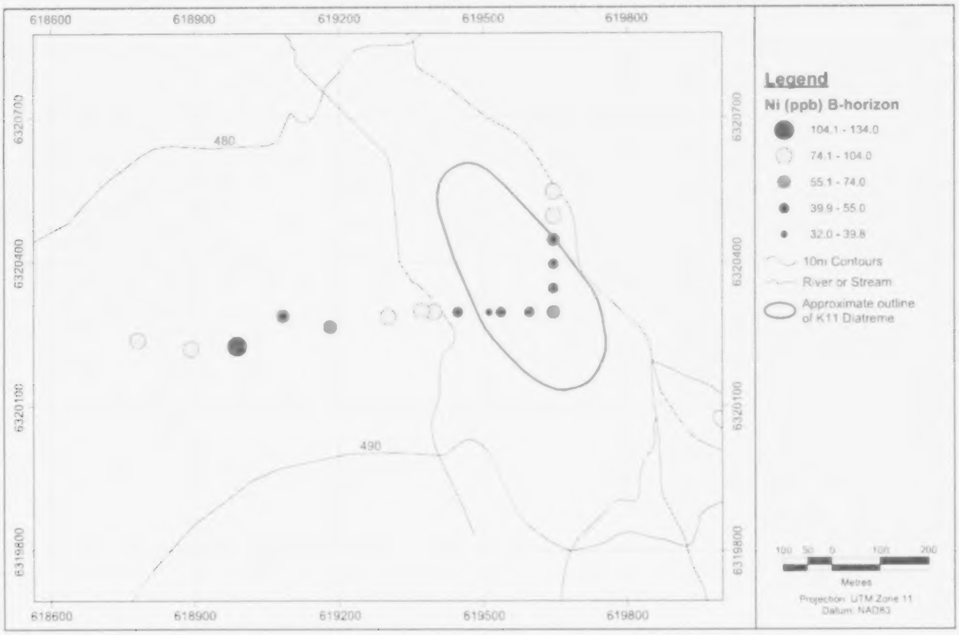

Figure 49. Distribution of enzyme extractable Ni in –63 µ m B-horizon soil over the till-covered (13 m) K11 pipe in the Loon River lowland.

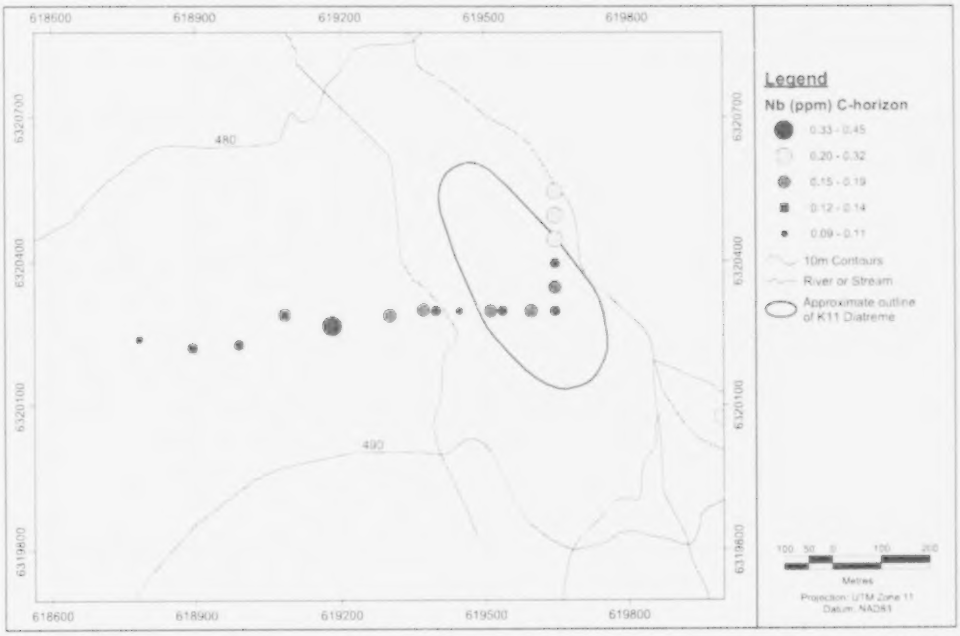

Figure 50. Distribution of aqua regia extractable Nb in –63 μ m C-horizon till over the till-covered (13 m) K11 pipe in the Loon River lowland.

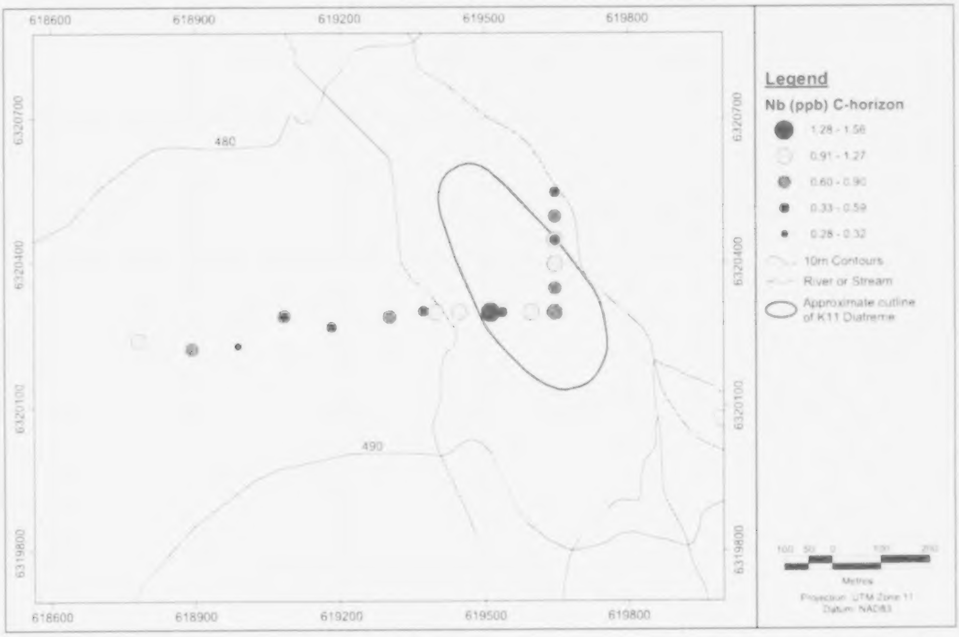

Figure 51. Distribution of enzyme extractable Nb in –63 μ m C-horizon till over the till-covered (13 m) K11 pipe in the Loon River lowland.

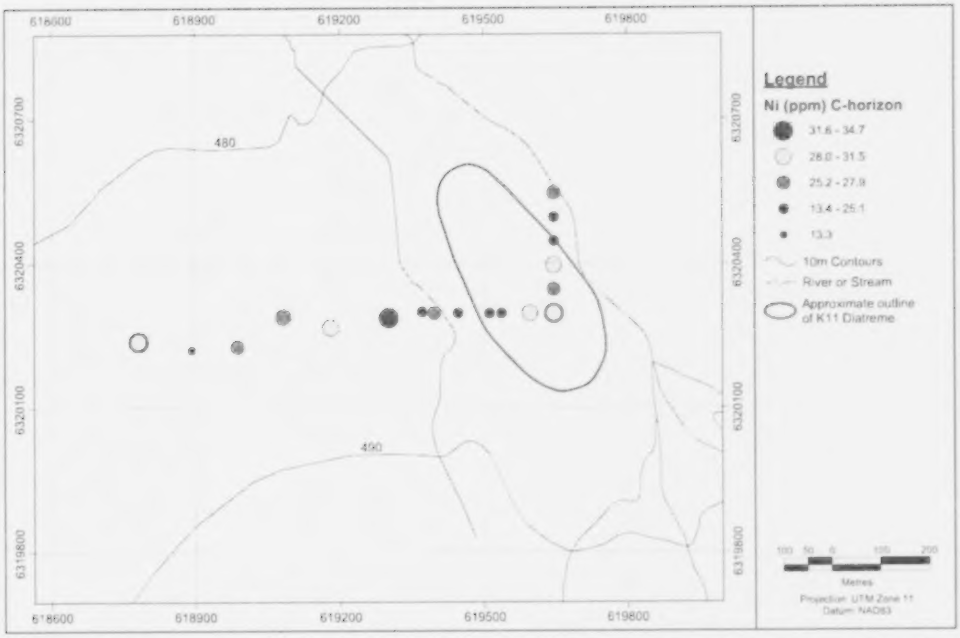

Figure 52. Distribution of aqua regia extractable Ni in –63 µ m C-horizon till over the till-covered (13 m) K11 pipe in the Loon River lowland.

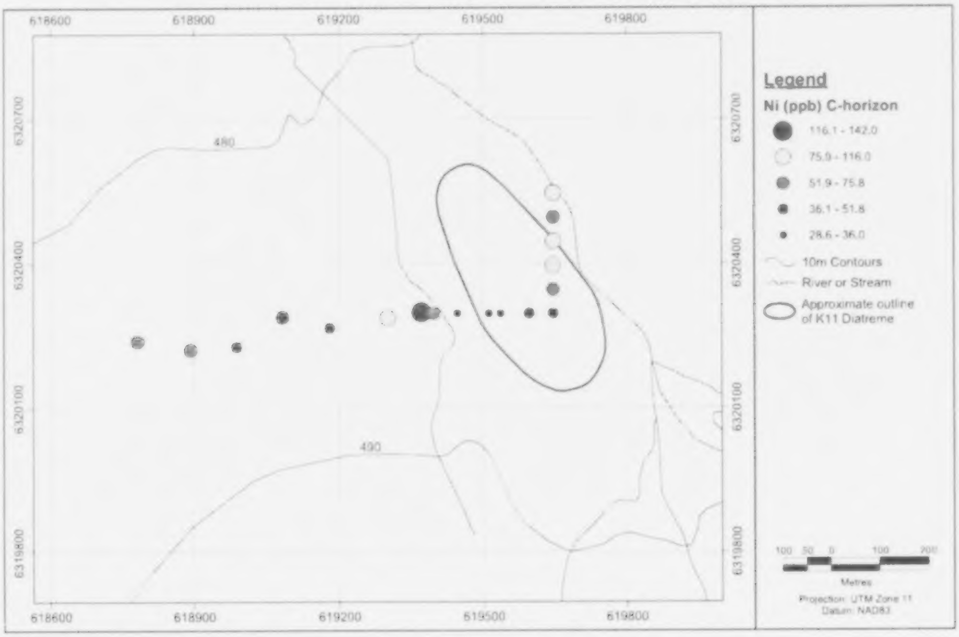

Figure 53. Distribution of enzyme extractable Ni in –63 µ m C-horizon till over the till-covered (13 m) K11 pipe in the Loon River lowland.

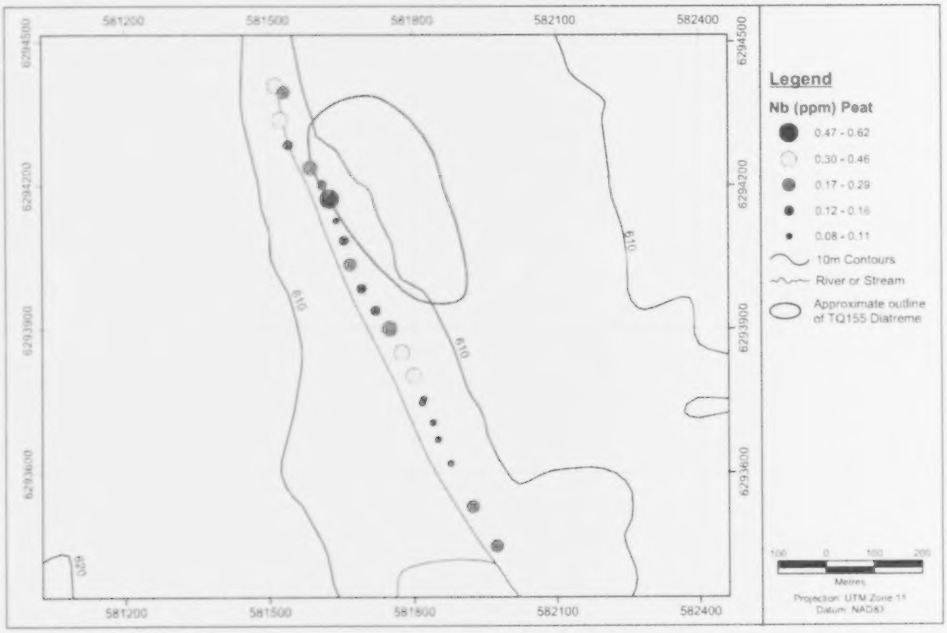

Figure 54. Distribution of aqua regia extractable Nb in –63 μ m peat over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

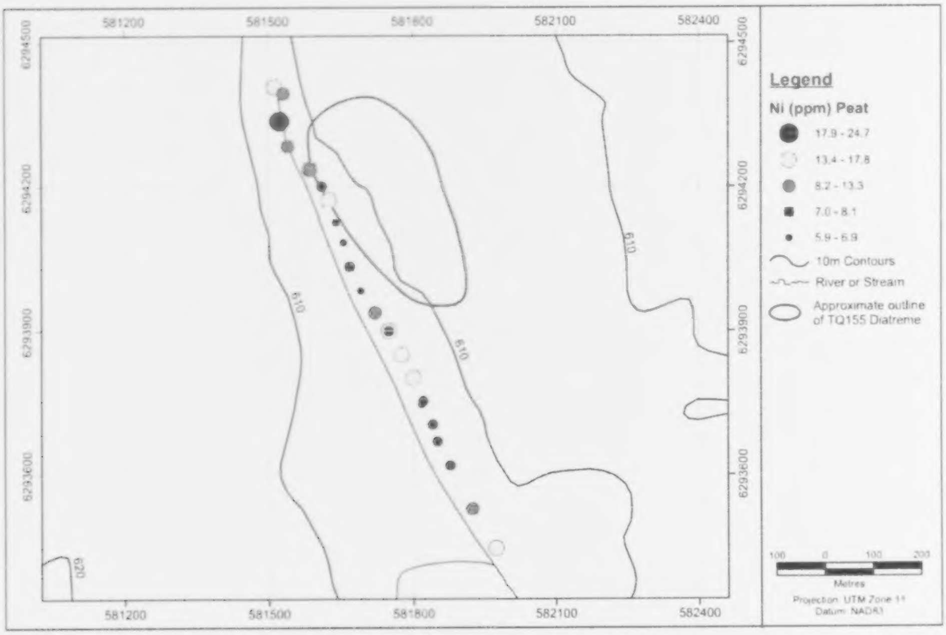

Figure 55. Distribution of aqua regia extractable Ni in –63 μ m peat over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

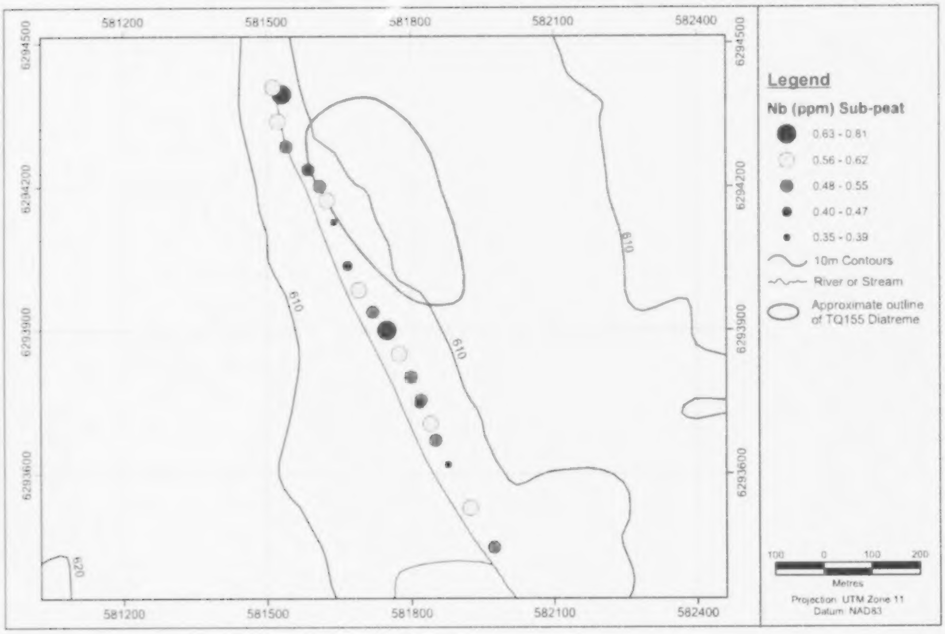

Figure 56. Distribution of aqua regia extractable Nb in –63 µ m subpeat sediments over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

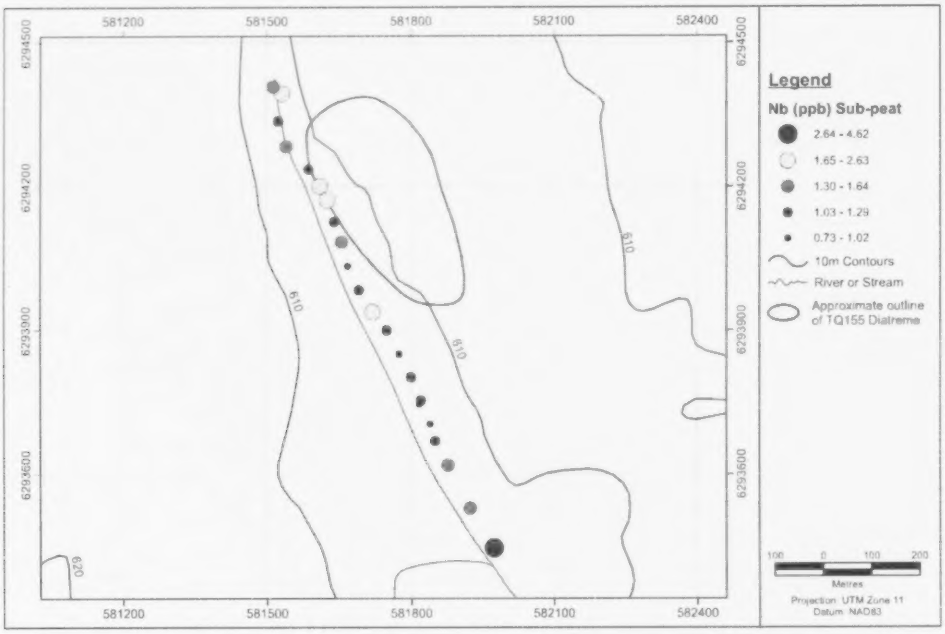

Figure 57. Distribution of enzyme extractable Nb in –63 µ m subpeat sediments over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

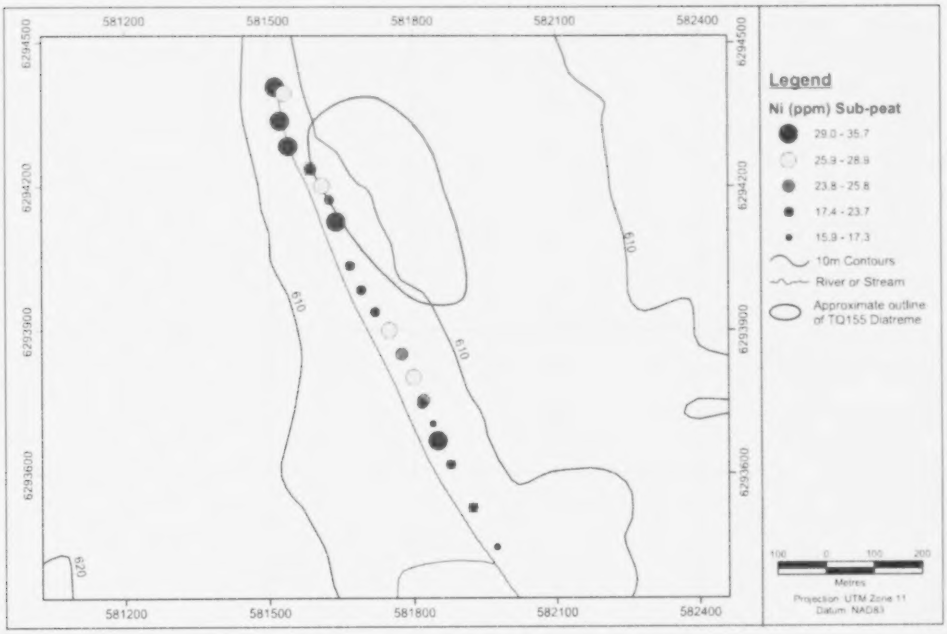

Figure 58. Distribution of aqua regia extractable Ni in –63 μ m subpeat sediments over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills.

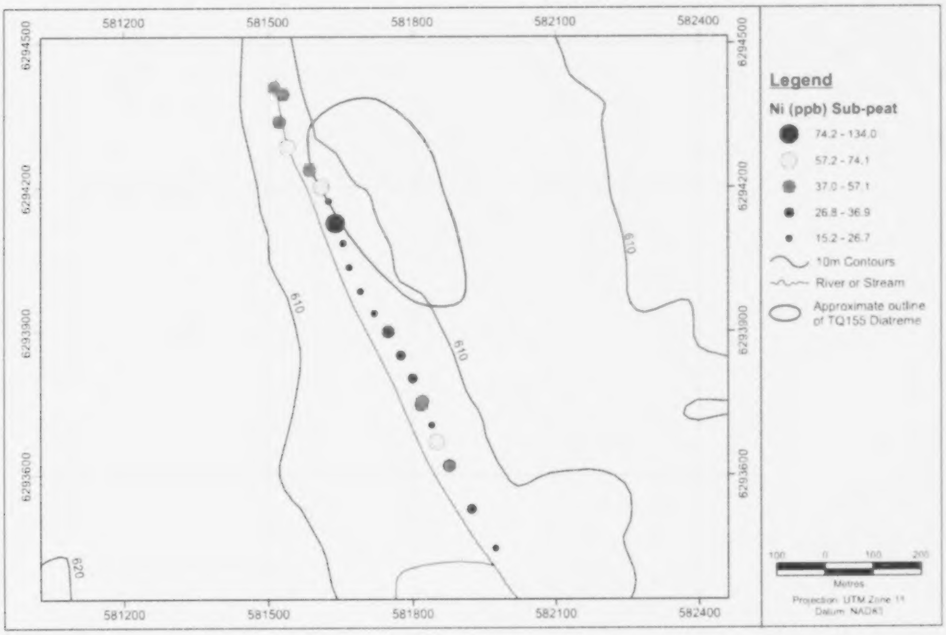

Figure 59. Distribution of enzyme extractable Ni in –63 μ m subpeat sediments over the till-covered (34 m) TQ155 pipe in the Buffalo Head Hills

6.1 Geology of the Birch Mountains

The Legend kimberlite field is located proximal to the eastern margin of the Buffalo Head Hills Terrane and Proterozoic Taltson Arc in the southern part of the Birch Mountains (Figures 2 and 60). The Taltson Arc extends from southern Alberta to Great Slave Lake. Based upon currently available regional aeromagnetic data, it can be characterized by a tightly corrugated internal fabric of sinuous, north-trending, positive anomalies separated by tracts of aeromagnetically negative rocks. Within the Taltson Arc, the northerly trending bands of 'positive aeromagnetic signatures' generally correspond to highly deformed biotite-hornblende gneiss and some moderately deformed intrusive rocks. Paragneisses of the northern part of the Taltson Arc have not been dated, but are lithologically similar to rocks in the Fitzgerald area in northeastern Alberta, which are cut by 2500 Ma pegmatites, indicating the gneisses are of Archean Age.

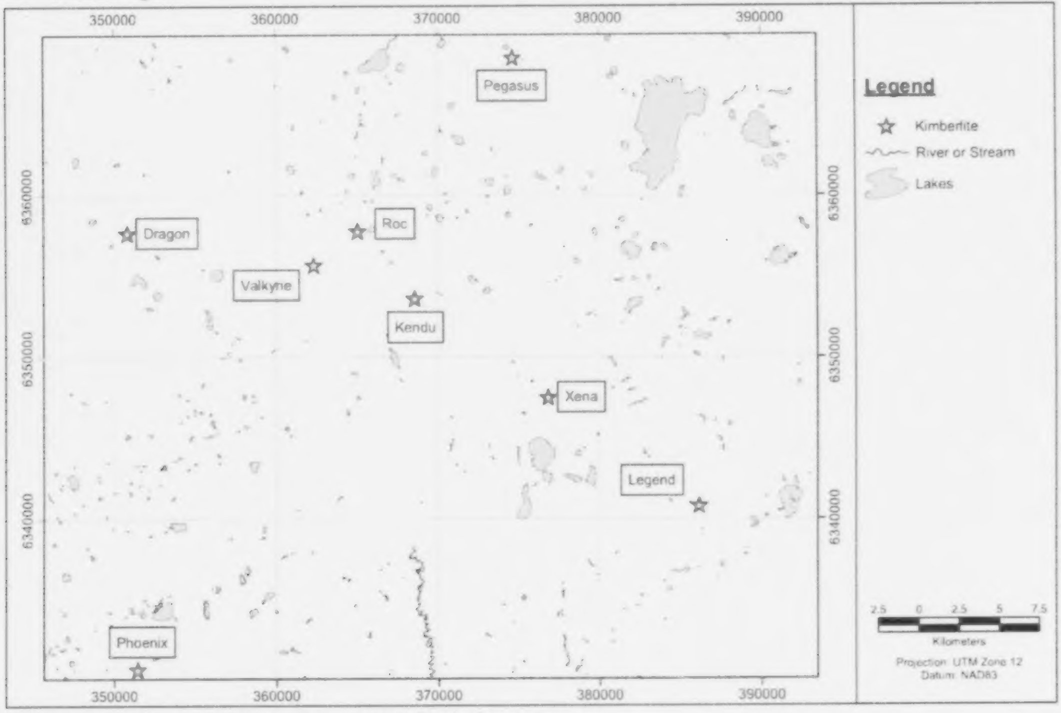

Figure 60. Location of kimberlite pipes in the Birch Mountains.

Prior exploration of the property focused upon distinct aeromagnetic anomalies within an extensive area of aeromagnetically negative rocks. This region is apparently underlain, at depth, by Proterozoic Intrusive(s) rocks, with lesser diamond potential. Of particular interest is that the two known diamondiferous kimberlites (Phoenix and Legend) are flanked by areas of positive aeromagnetic signatures that presumably reflect underlying Archean Crust.

Luvisolic, gleysolic, Brunisolic and organic soils mantle till over the area sampled. The till cover over the Legend pipe is approximately 13 m thick based on data obtained from drill logs. In comparison with Mountain Lake and the Buffalo Head Hills, the dark brown to black A-horizon soils over Legend are more acidic, but have similar conductivity (cf. Tables 2, 5 and 6). The B-horizon soils over Legend are more acidic and have higher moisture and fines content than the B-horizon soils in the Buffalo Head Hills (cf. Tables 5 and 6). The C-horizon till over Legend is more acidic with higher moisture content than till at Mountain Lake and the Buffalo Head Hills. In addition, the sharp increase in the pH and conductivity from the B-horizon soil to C-horizon till observed at Mountain Lake and the Buffalo Head Hills is not apparent at Legend. Other than the lower fines content and darker brown colour, the C-horizon till is similar to the B-horizon soil at Legend in terms of acidity, conductivity and moisture content. Perhaps the transition to a 'true' C-horizon occurs at a greater depth over Legend.

Table 6. Characteristics of sample media collected over the Legend Kimberlite Pipe (all numbers are median values).

Sample Media	Colour	pH	Conductivity (µS/cm)	% <63 µm	% moisture
A-horizon soil	dark brown to black	4.6	44	NA	NA
B-horizon soil	brown (10YR 3.5/3)	4.9	7	12.9	15.4
C-horizon till	dark brown (7.5YR 3/2)	5.0	9	9.2	15.2

In descending order of abundance, over story on the east slope of the Birch Mountains consists of black spruce (*Picea mariana*), white spruce (*Picea glauca*), trembling aspen (*Populus tremuloides*) and minor white birch (*Betula papyrifera*) and mountain alder (*Alnus tenuifolia*).

6.2 Results of the Multimedia Orientation Survey

As indicated by Table 3, all sample media collected show Group 1F and enzyme extractable multi-element anomalies that are spatially associated with the Legend pipe. As with the Buffalo Head Hills pipes, anomalous elements over Legend from the TEA (e.g., Re) and SEA (e.g., Sn) suites show higher anomaly contrast than those from the PEA (e.g., Ni) suite (Table 3).

Low contrast Nb and higher contrast Ni anomalies (Table 4) in black spruce needles are spatially correlated with the Legend pipe (Figures 61 and 62). The Ni anomalies are confined to the central and western parts of the pipe, whereas the Nb anomalies cluster around the central part and eastern margin of the pipe. This anomaly pattern could reflect mineralogical zoning within the buried kimberlite pipe.

The distribution of Nb in A-horizon soil is erratic with no apparent relationship to the kimberlite, but low contrast Ni anomalies cluster around the western and eastern margins of the pipe (Figures 63 and 64). The clustering of Ni anomalies in A-horizon soil over the pipe is similar to the anomaly pattern for Ni in spruce needles (cf. Figures 62 and 64).

As with the A-horizon soil, the distribution of Group 1F extractable Nb in B-horizon soil is irregular with no spatial relation to the kimberlite. In contrast, enzyme extractable Nb in B-horizon soil is anomalous directly over the pipe (Figures 65 and 66). Group 1F extractable Ni is anomalous in one sample near the kimberlite float that was discovered by digging up the till, but enzyme extractable Ni shows more anomalies over the pipe (Figures 67 and 68).

In the C-horizon till, the Group 1F extractable Nb shows no response over the buried kimberlite, but enzyme extractable Nb anomalies are evident near the western and eastern margins of the pipe (Figures 69 and 70). In contrast, both Group 1F and enzyme extractable Ni show almost identical anomalies over the central and western parts of the pipe (Figures 71 and 72).

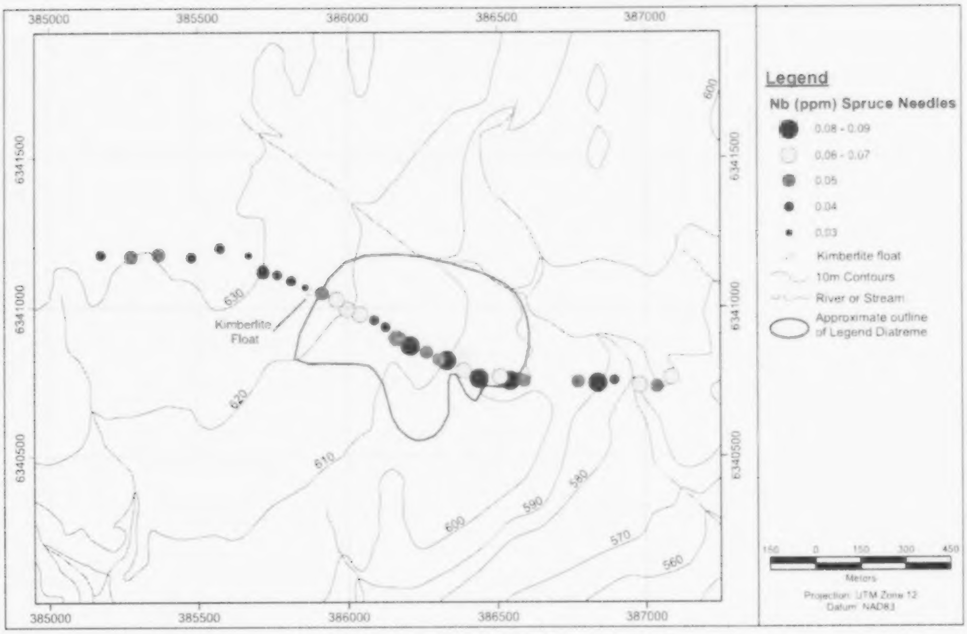

Figure 61. Distribution of aqua regia extractable Nb in ashed spruce needles over the till-covered (12 m) Legend pipe in the Birch Mountains.

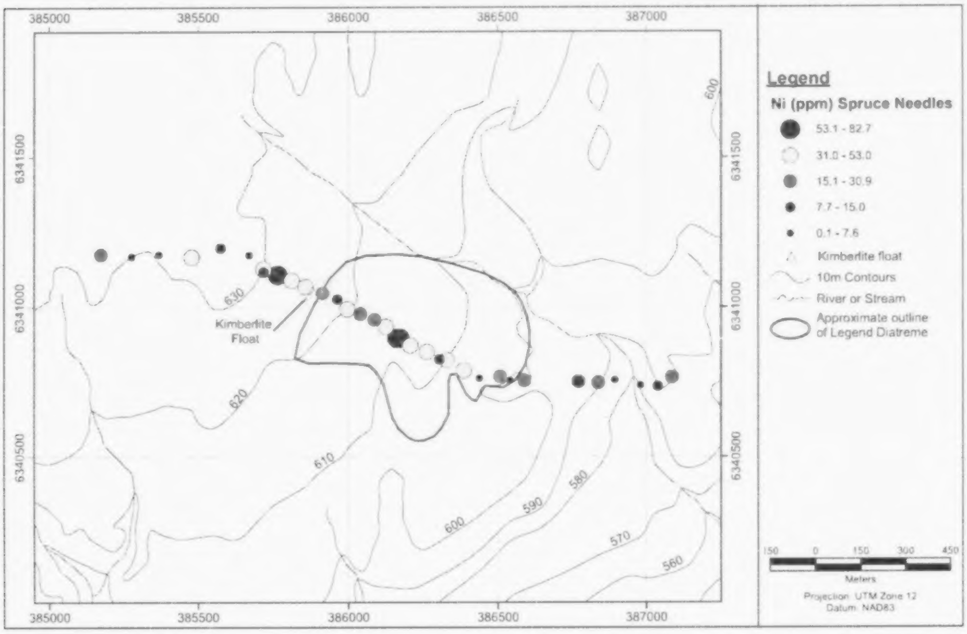

Figure 62. Distribution of aqua regia extractable Ni in ashed spruce needles over the till-covered (12 m) Legend pipe in the Birch Mountains.

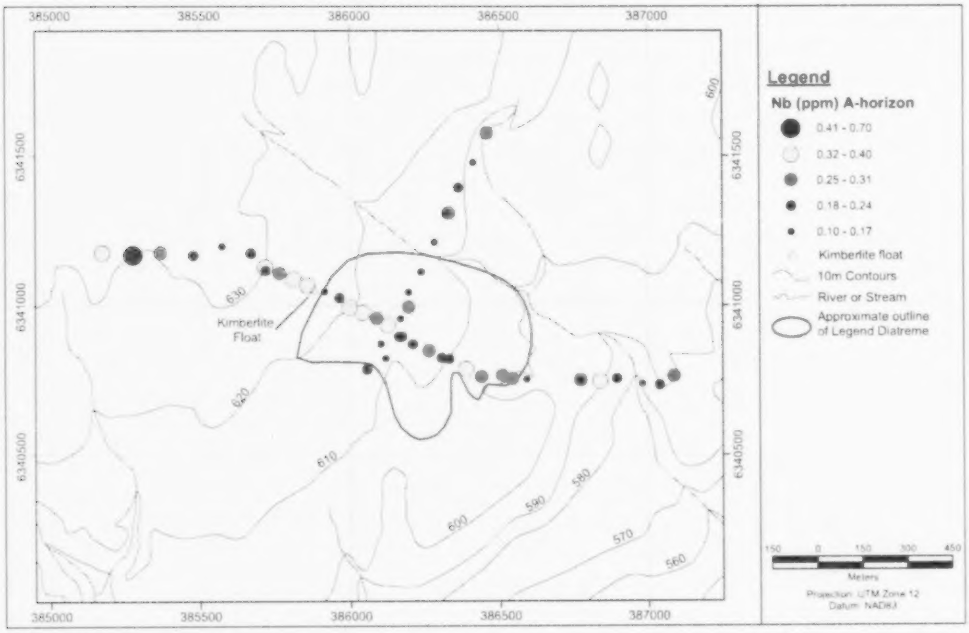

Figure 63. Distribution of aqua regia extractable Nb in –200 µ m A-horizon soil over the till-covered (12 m) Legend pipe in the Birch Mountains.

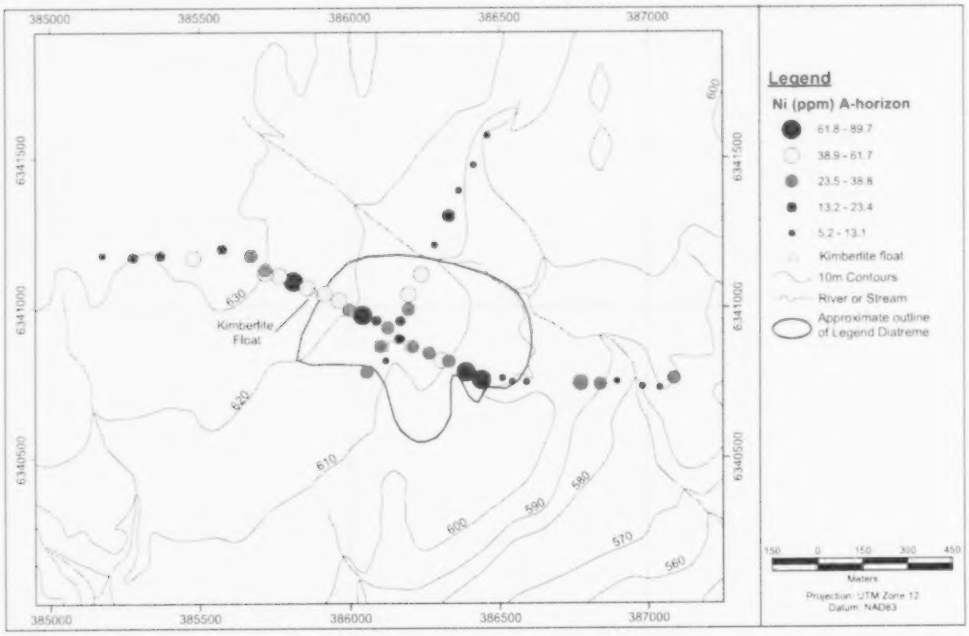

Figure 64. Distribution of aqua regia extractable Ni in –200 µ m A-horizon soil over the till-covered (12 m) Legend pipe in the Birch Mountains.

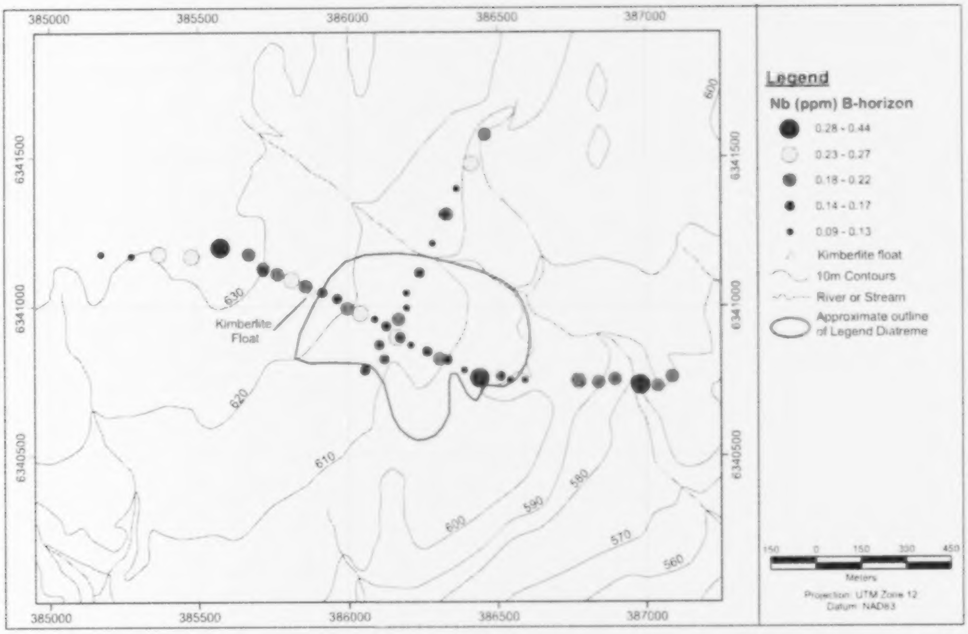

Figure 65. Distribution of aqua regia extractable Nb in –63 μ m B-horizon soil over the till-covered (12 m) Legend pipe in the Birch Mountains.

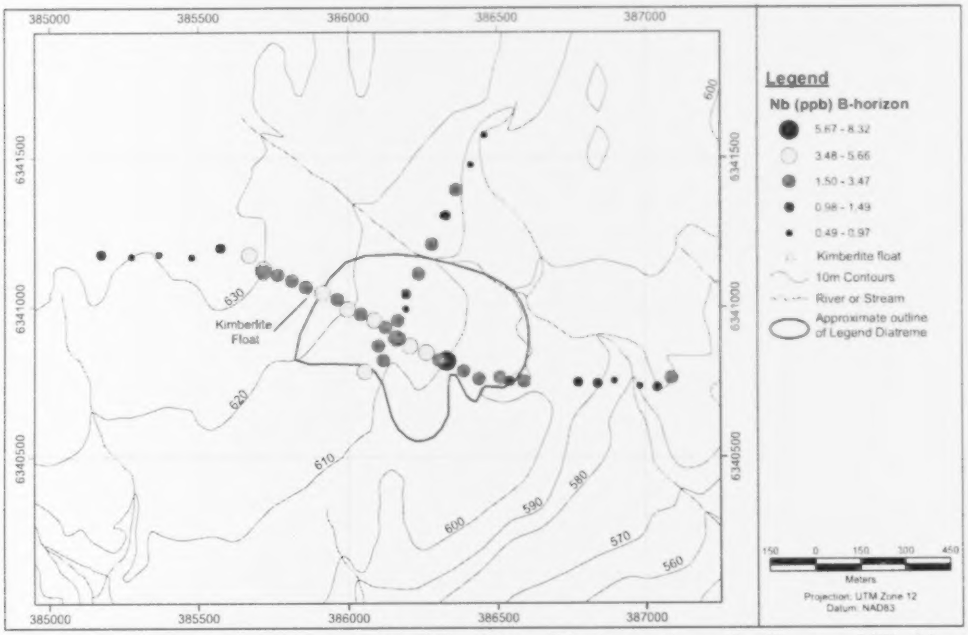

Figure 66. Distribution of enzyme extractable Nb in –63 μ m B-horizon soil over the till-covered (12 m) Legend pipe in the Birch Mountains.

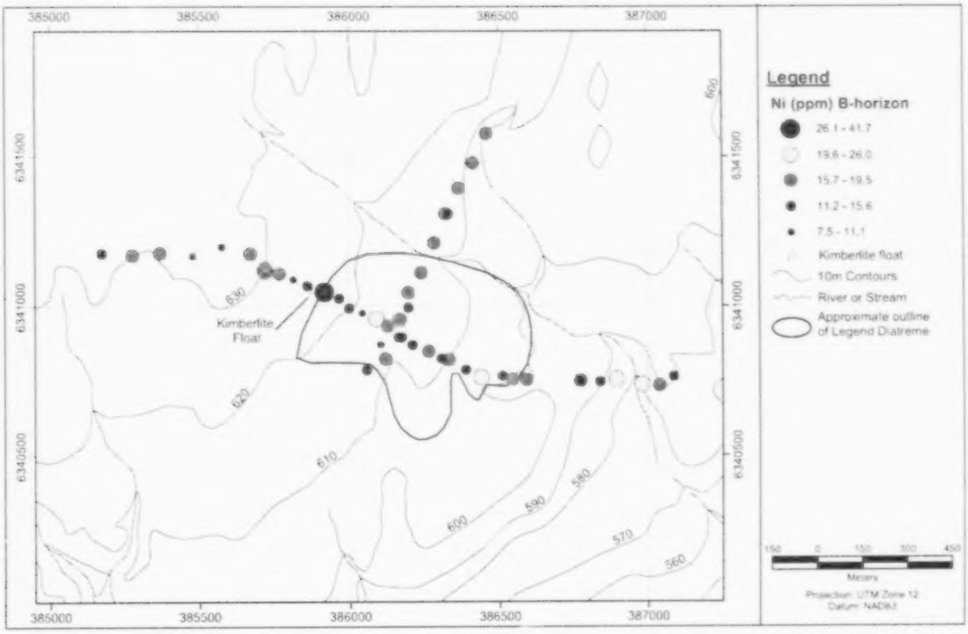

Figure 67. Distribution of aqua regia extractable Ni in –63 µ m B-horizon soil over the till-covered (12 m) Legend pipe in the Birch Mountains.

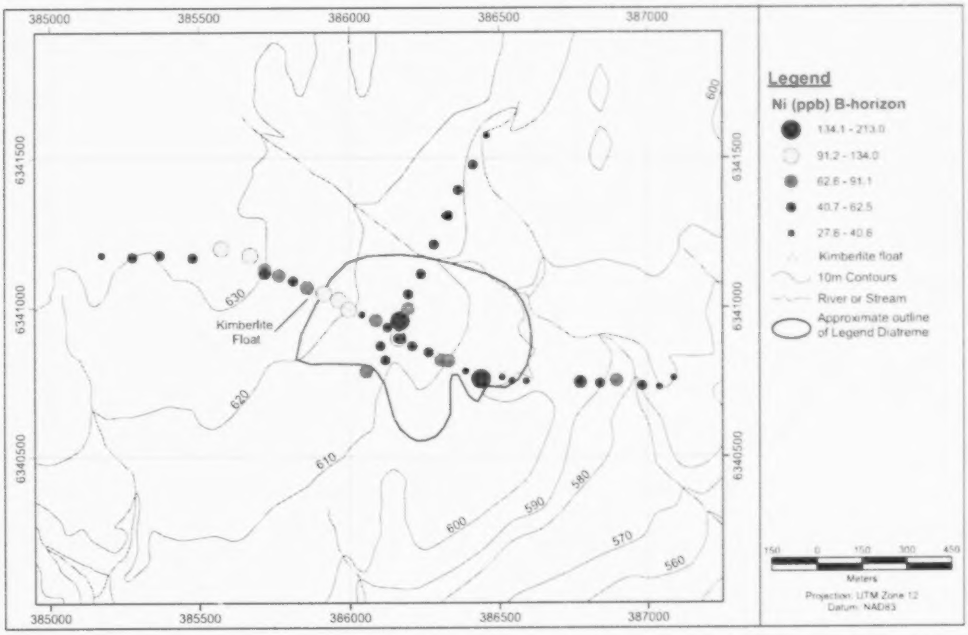

Figure 68. Distribution of enzyme extractable Ni in –63 µ m B-horizon soil over the till-covered (12 m) Legend pipe in the Birch Mountains.

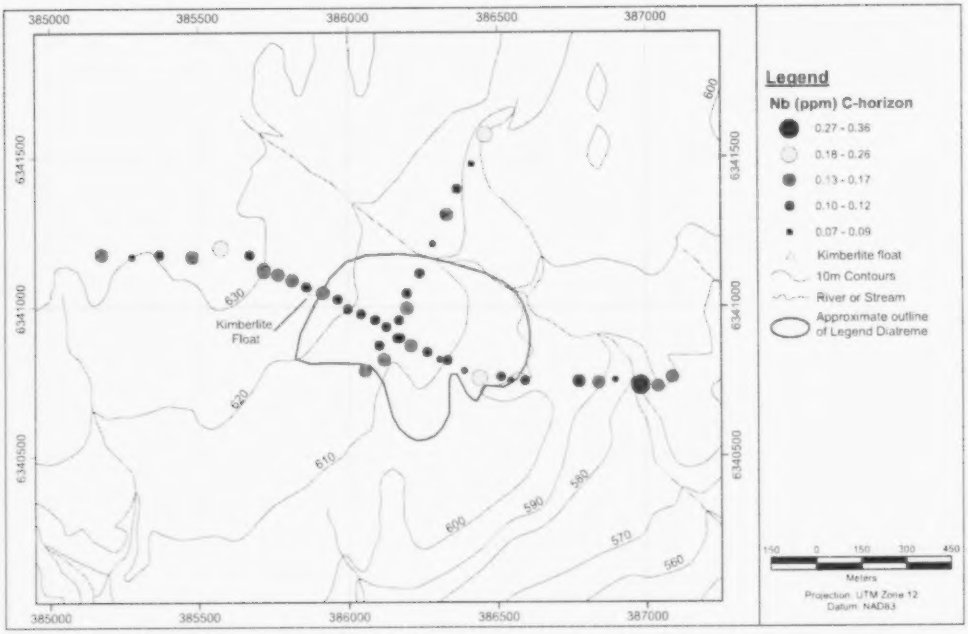

Figure 69. Distribution of aqua regia extractable Nb in –63 µ m C-horizon till over the till-covered (12 m) Legend pipe in the Birch Mountains.

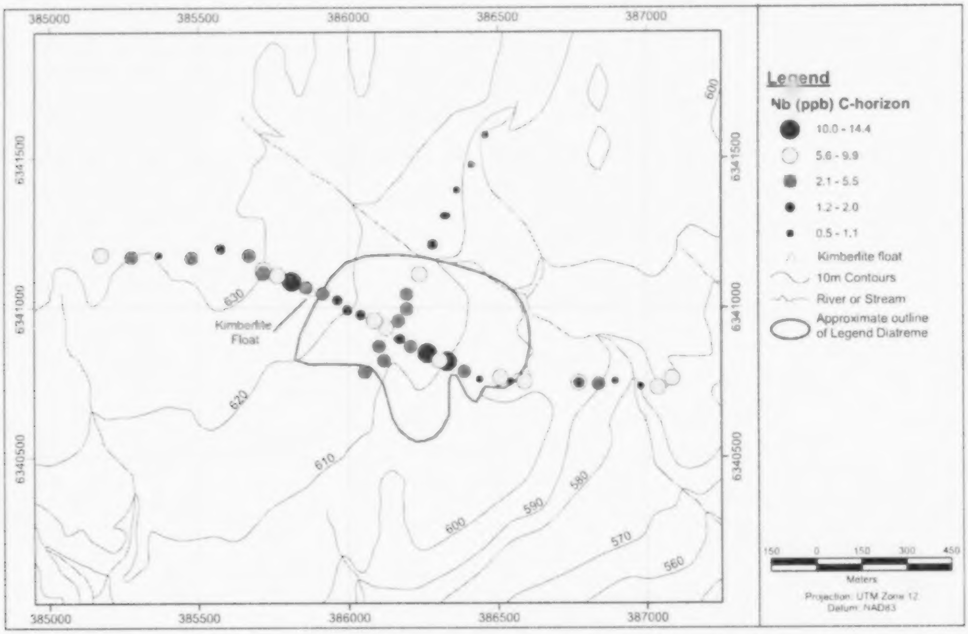

Figure 70. Distribution of enzyme extractable Nb in –63 µ m C-horizon till over the till-covered (12 m) Legend pipe in the Birch Mountains.

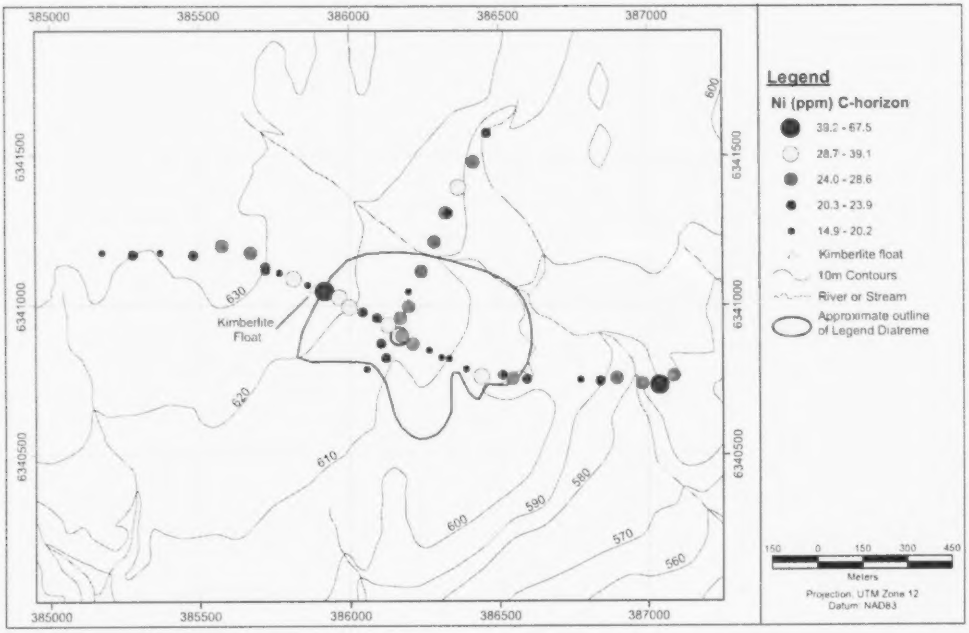

Figure 71. Distribution of aqua regia extractable Ni in –63 µ m C-horizon till over the till-covered (12 m) Legend pipe in the Birch Mountains.

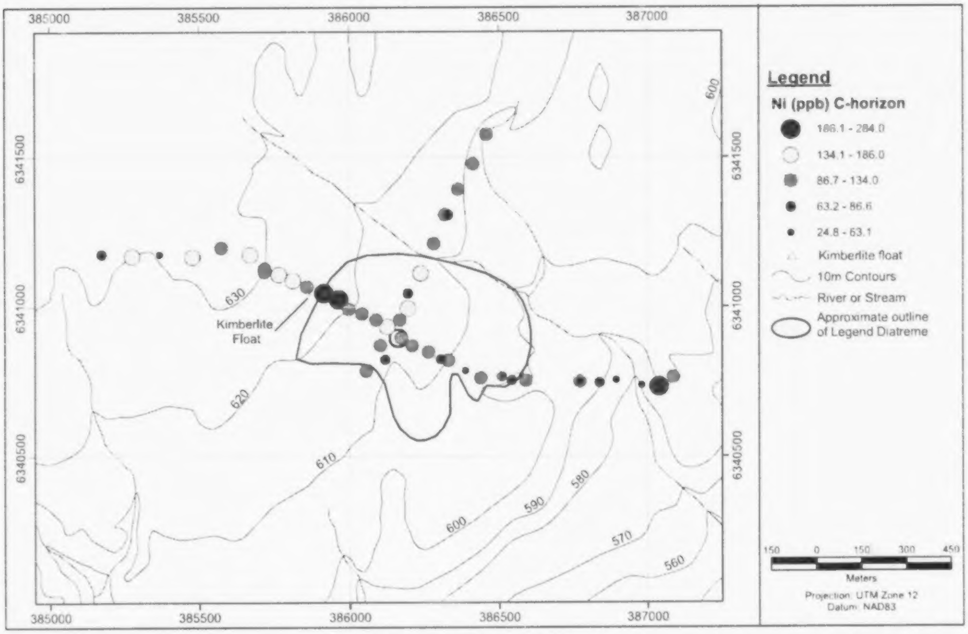

Figure 72. Distribution of enzyme extractable Ni in –63 µ m C-horizon till over the till-covered (12 m) Legend pipe in the Birch Mountains.

7 Conclusions

The following conclusions can be drawn from orientation studies over ultramafic diatremes in northern Alberta:

Group 1F analysis of vegetation and soil reference materials reveals that the analytical method has good precision and accuracy. The enzyme leach shows poor reproducibility for the same elements, and the accuracy cannot be evaluated because of the lack of standards available for this analytical method. The reasons for the poor precision shown by the enzyme leach for NAT98-82 and Till2 are unclear, but it could reflect the irregular distribution of enzyme susceptible source minerals in these reference materials. The Group 1F susceptible source minerals are more uniformly distributed as indicated by the good precision shown by all elements except Au.

Analysis of the field, sample and lab duplicates indicates that:

The magnitude of within-site variability approaches the total variability in many cases, suggesting there is little between site variance in element concentrations. This is further indicated by the low anomaly contrast shown by elements of interest in the majority of the orientation surveys.

The magnitude of the within-sample variability for elements in plant tissue, soils and till is considerably lower than the sample site itself, particularly for the Group 1F extractable elements. This indicates that source minerals for the elements are more regularly distributed within samples than sample sites. The sediment samples are further homogenized by sieving, as indicated by the decrease in variability between sample and laboratory duplicates. The within-sample variability for enzyme-extractable elements does not improve substantially by sieving, and this probably reflects the extreme heterogeneity of enzyme susceptible source minerals within the samples.

The main element suites that are anomalous in organic and inorganic media over buried ultramafic diatremes in northern Alberta are

1) PEA} *Primary Element Association* (Ni, Co, Cu, Cr, Ti, V, Mg, Mn and Fe).
2) {SEA} *Secondary Element Association* (H^+, Nb, Rb, Zr, Y, Sc, Th, U, Cs, REE, P, Al, K, Na, Ca, Ba, Sn, Mo, W, Cd, Zn, Pb, B, Hf and Ga).
3) {TEA} *Tertiary Element Association* (Au, Ag, Re, Te, Se, Sb, Bi and S)

In areas of shallow till cover (<2 m), the Group 1F analysis of soil or till yields very high contrast anomalies in PEA, SEA and TEA elements. Elements of the TEA and SEA suites typically show higher anomaly contrast than those of the PEA suites. The trembling aspen in these areas also give high contrast anomalies over shallow-buried diatremes (Eccles, 1998). The anomalies, for the most part, are confined to the diatreme itself (e.g., Mountain Lake) with very limited dispersion in down-ice directions.

In areas of moderately thick glacial drift (i.e., 10-15 m), anomalous concentrations of PEA, SEA and TEA elements are evident over kimberlite pipes, but the contrast is considerably lower compared to pipes under shallow glacial till. The exception is Au, which shows very high contrast in white and black spruce-top twigs over K5 and K11, respectively. In general, elements of the TEA and SEA suites show higher anomaly contrast than those of the PEA suite. Pathfinder elements show higher contrast in B-horizon soil compared with C-horizon till, and the enzyme extractable elements show considerably higher contrast than those extracted by the Group 1F analysis. As for anomalies over shallow-covered pipes, those over pipes buried by a moderately thick till do not show significant dispersion in down-ice directions. One exception could be K5, where Group 1F extractable Nb in B-horizon soil is anomalous for 500 m down-ice of the pipe.

Sample media that provide the best indication of deeply buried (i.e., >30 m) kimberlite pipes are white spruce-top twigs, C-horizon till, peat and subpeat sediments. The enzyme leach provides higher contrast anomalies in C-horizon till and subpeat sediments than with the Group 1F analysis. Group 1F analysis of organic media (peat and spruce twigs) provides anomalous responses of adequate contrast over the buried pipe. As with the anomalies evident over pipes under shallow to intermediate till cover, those over the deeply buried TQ155 pipe show little dispersal in down-ice directions.

8 Recommendations

The following recommendations can be made toward future prospecting for buried kimberlites in northern Alberta:

The anomaly patterns examined in this study suggest there is very little, if any, chemical dispersion of kimberlite pathfinder elements down-slope and/or down-ice from buried pipes. As such, these methods should be used locally for classifying airborne or ground geophysical targets by sampling of plant tissue, soil, till, peat and/or subpeat sediments at short intervals (<50 m). Sampling at larger intervals (e.g., 1 km) in a regional geochemical survey could potentially miss buried kimberlite pipes, but may assist in locating kimberlite fields.

In the case of shallow glacial drift (<2 m), high contrast, Group 1F multi-element anomalies over buried kimberlite are evident in trembling aspen bark, twigs, stems (Eccles, 1998a), A- and B-horizon soil, and C-horizon till. In the interest of time and cost for ground-truthing of geophysical anomalies, it is recommended that trembling aspen or spruce tissue be sampled at short intervals (<50 m) and analyzed by the Group 1F method (ICP-MS).

In the case of moderately deep glacial drift (10-15 m), low to moderate contrast, Group 1F and enzyme multi-element anomalies over buried kimberlite are evident in white and black spruce-top twigs, ground-level spruce needles, A- and B-horizon soil, and C-horizon till. In the interest of time and cost for ground-truthing of geophysical anomalies, it is recommended that white or black spruce tissue be sampled on the ground or from a helicopter at short intervals (<50 m) and analyzed by the Group 1F method (ICP-MS).

In the case of deep glacial drift (>30 m), low to moderate contrast, Group 1F and enzyme multi-element anomalies over buried kimberlite are evident in white and black spruce-top twigs, ground-level willow twigs, A- and B-horizon soil, C-horizon till, peat, and subpeat sediments. In the interest of time and cost for ground-truthing of geophysical anomalies, it is recommended that white or black spruce tissue be sampled on the ground or from a helicopter at short intervals (<50 m) and analyzed by the Group 1F method (ICP-MS).

An investigation into the effectiveness of various selective leach methods with subsequent comparison between the methods would assist in building an understanding of element migration and dispersion process.

The spatial range of sampling should be increased around the kimberlites. In addition, several barren areas should be sampled so that a background control can be established.

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Appendix 1 - Accuracy and Precision Results for Standards, Vegetation, A- and B-Horizon Soils, and C-Horizon Till Samples Analyzed by Group 1F and Enzyme Leach

Table A1. Variability shown by V4, V6 and V8 standards (Group 1F Analysis).

V6 Standard	Ni (ppm)	Au (ppb)	P (%)	Cr (ppm)	Mg (%)	Ti (%)	Nb (ppm)
A86	40.5	7.2	0.714	36.4	2.27	0.03	0.23
A156	42.8	3.4	0.772	33.2	1.94	0.027	0.16
A203	41.7	8.6	0.657	38.1	2.07	0.03	0.19
A275	33.1	4.9	0.746	36.1	2.08	0.027	0.21
Mean	40	6.03	0.72	17.8	2.09	0.03	0.20
Standard Deviation	4.39	2.32	0.05	1.4	0.14	0.002	0.03
***Relative Standard Deviation%**	22	77	14	16	13	12	30
V4 Standard	Ni (ppm)	Au (ppb)	P (%)	Cr (ppm)	Mg (%)	Ti (%)	Nb (ppm)
A113	66.1	5.1	2.104	8.4	2.33	0.013	0.47
A167	67.1	3.5	2.249	9.2	2.31	0.013	0.41
A224	63.1	10.3	2.639	10.8	2.44	0.014	0.41
Mean	65.4	6.30	2.33	9.47	2.36	0.01	0.43
Standard Deviation	2.1	3.56	0.28	1.22	0.07	0.0006	0.03
Relative Standard Deviation%	6	113	24	26	6	9	16
V8 Standard	Ni (ppm)	Au (ppb)	P (%)	Cr (ppm)	Mg (%)	Ti (%)	Nb (ppm)
A123	52	1.5	3.16	1.8	3.88	0.002	0.05
A190	81	3	3.63	2.2	4.35	0.002	0.05
A256	59.2	1.9	2.75	1.7	3.79	0.001	0.05
Mean	64.1	1.5	3.18	1.90	4.01	0.0017	0.05
Standard Deviation	15.1	0.3	0.44	0.26	0.30	0.0006	0
Relative Standard Deviation%	47	45	28	28	15	69	0

*Relative standard deviation is the standard deviation divided by the mean at the 95% confidence level.

Table A2a. Variability shown by NAT98-82 Standard (Group 1F Analysis).

Batch 1 (BH)	Ni	Au	P	Cr	Mg	Ti	Nb
Sample	ppm	ppb	%	ppm	%	%	ppm
1005	28.2	1.3	0.07	17.2	0.83	0.007	0.12
1042	28.1	1.9	0.069	17.8	0.81	0.008	0.1
1081	27.8	0.8	0.066	16.7	0.78	0.005	0.11
1114	29.3	2.6	0.068	17.1	0.81	0.006	0.11
1153	30.1	1.8	0.068	20.2	0.85	0.006	0.13
Mean	28.7	1.7	0.1	17.8	0.8	0.0	0.1
Standard Deviation	1.0	0.7	0.0	1.4	0.0	0.0	0.0
Relative Standard Deviation%	7	80	4	16	6	36	20
Batch 2 (ML & BM)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
1197	29.8	1.2	0.064	18.5	0.8	0.007	0.13
1239	30.3	1.3	0.064	19	0.8	0.01	0.11
1302	28	1.6	0.063	17.8	0.78	0.007	0.14
1365	28.7	1.3	0.067	16.9	0.78	0.007	0.12
1412	29.5	1.9	0.063	18.8	0.79	0.008	0.17
1454	28.2	1.2	0.064	18.1	0.77	0.007	0.11
1504	30.7	2	0.069	16.9	0.74	0.009	0.22
Mean	29.3	1.5	0.1	18.0	0.8	0.0	0.1
Standard Deviation	1.0	0.3	0.0	0.9	0.0	0.0	0.0
Relative Standard Deviation%	7	45	7	9	5	31	56

*Relative standard deviation is the standard deviation divided by the mean at the 95% confidence level.

Table A2b. Variability shown by NAT98-82 Standard (Enzyme Analysis).

BHH and BM Batch	Ni	Au	P	Cr	Mg	Ti	Nb
Sample	ppb	ppb	ppb	ppb	ppm	ppb	ppb
2005	278.0	0.310	NA	160	159.00	618	4.2
2042	257.0	0.245	NA	107	201.00	296	2.7
2081	206.0	0.124	NA	66	185.00	223	1.5
2114	231.0	0.239	NA	64	0.04	334	1.6
2154	62.4	0.119	NA	23	43.20	169	1.0
2195	129.0	0.194	NA	53	81.00	516	3.0
2242	154.0	0.228	NA	48	117.00	351	1.4
2284	113.0	0.203	NA	36	111.00	434	2.1
Mean	178.8	0.2	NA	69.6	112.2	367.6	2.2
Standard Deviation	76.0	0.1	NA	44.2	69.4	149.3	1.1
Relative Standard Deviation%	85	61	NA	127	124	81	97

*Relative standard deviation is the standard deviation divided by the mean at the 95% confidence level.

Table A3a. Variability shown by Till2 Standard (Group 1F Analysis).

Batch 1 (BH)	Ni	Au	P	Cr	Mg	Ti	Nb
Sample	ppm	ppb	%	ppm	%	%	ppm
1018	29.5	3.4	0.054	34.8	0.68	0.1	2.34
1055	31.8	2.2	0.055	35.7	0.69	0.102	2.48
1091	31	1.7	0.056	35.4	0.7	0.101	2.47
1128	31.9	4.2	0.054	35.9	0.69	0.108	2.37
1166	30.1	1.4	0.049	35.3	0.67	0.098	2.34
Recommended Value	31	?	?	40	?	?	?
%Difference	0	?	?	-11	?	?	?
Mean	30.9	2.6	0.1	35.4	0.7	0.1	2.4
Standard Deviation	1.1	1.2	0.0	0.4	0.0	0.0	0.1
Relative Standard Deviation%	7	92	10	2	3	7	6
Batch 2 (ML & BM)							
1211	34	2.9	0.055	38.8	0.73	0.115	2.57
1274	31.3	1.9	0.05	36.3	0.69	0.09	2.41
1316	32.2	4.4	0.055	33.8	0.68	0.097	2.35
1379	33.1	2	0.056	36.4	0.7	0.101	2.26
1426	31.1	2.2	0.056	36.2	0.69	0.098	2.27
1476	32.7	3	0.056	35.5	0.7	0.103	2.33
1517	32.1	2.4	0.054	33.9	0.66	0.085	2.22
Recommended Value	31	?	?	40	?	?	?
%Difference	4	?	?	-10	?	?	?
Mean	32.4	2.7	0.1	35.8	0.7	0.1	2.3
Standard Deviation	1.0	0.9	0.0	1.7	0.0	0.0	0.1
Relative Standard Deviation%	6	64	8	10	6	20	10

*Relative standard deviation is the standard deviation divided by the mean at the 95% confidence level.

Table A3b. Variability shown by Till2 Standard (Enzyme Leach).

BHH and BM Batch	Ni	Au	P	Cr	Mg	Ti	Nb
Sample	ppb	ppb	ppb	ppb	ppm	ppb	ppb
2005	31.8	0.018	NA	82	44.10	950	4.9
2042	43.5	0.029	NA	81	71.20	1590	5.3
2081	84.3	0.047	NA	142	111.00	1850	5.6
2114	42.1	0.009	NA	76	59.70	1750	5.1
2154	17.6	0.012	NA	40	23.40	450	2.2
2195	21.9	0.014	NA	38	30.00	651	2.9
2242	33.0	0.008	NA	38	30.80	1270	5.6
2284	38.5	0.034	NA	47	44.90	1180	3.9
Mean	39.1	0.0	NA	67.9	51.9	1211.4	4.4
Standard Deviation	20.4	0.0	NA	35.8	28.74	508.2	1.3
Relative Standard Deviation%	105	130	NA	105	111	84	58

*Relative standard deviation is the standard deviation divided by the mean at the 95% confidence level.

Table A4a. Variability shown by Till3 Standard (Group 1F).

Batch 1 (BH)	Ni	Au	P	Cr	Mg	Ti	Nb
Sample	ppm	ppb	%	ppm	%	%	ppm
1028	28.5	4.5	0.042	59.5	0.56	0.061	0.77
1068	30.5	5.2	0.045	61.3	0.57	0.061	0.72
1104	30.8	17.3	0.044	62.5	0.58	0.06	0.77
1140	31.9	2.9	0.046	65.1	0.59	0.071	0.89
Recommended Value	32	?	?	73	?	?	?
%Difference	-5	?	?	-15	?	?	?
Mean	30.4	7.5	0.0	62.1	0.6	0.1	0.8
Standard Deviation	1.4	6.6	0.0	2.3	0.0	0.0	0.1
Relative Standard Deviation%	9	177	8	8	4	16	18
Batch 2 (ML & BM)	Ni	Au	P	Cr	Mg	Ti	Nb
1183	32.2	2.8	0.042	63.8	0.58	0.068	0.79
1225	32.6	6.7	0.045	70.6	0.6	0.08	0.92
1288	30.6	3.6	0.042	63.3	0.57	0.063	0.81
1351	32.2	32	0.045	64.5	0.58	0.062	0.75
1393	31.5	4.6	0.045	63.1	0.57	0.061	0.72
1440	31.7	17.4	0.045	64	0.59	0.061	0.71
1489	31.4	6.9	0.044	65.1	0.59	0.071	0.9
Recommended Value	32	?	?	73	?	?	?
%Difference	-1	?	?	-11	?	?	?
Mean	31.7	10.6	0.0	64.9	0.6	0.1	0.8
Standard Deviation	0.7	10.6	0.0	2.6	0.0	0.0	0.1
Relative Standard Deviation%	4	201	6	8	4	21	21

*Relative standard deviation is the standard deviation divided by the mean at the 95% confidence level.

Table A4b. Variability shown by Till3 Standard (Enzyme Analysis).

BHH and BM Batch	Ni	Au	P	Cr	Mg	Ti	Nb
Sample	ppb	ppb	ppb	ppb	ppm	ppb	ppb
2005	54.9	0.030	NA	2	144.00	563	2.2
2042	53.0	0.029	NA	2	118.00	588	3.2
2081	57.8	0.021	NA	2	65.70	472	1.8
2114	60.6	0.012	NA	2	61.30	610	2.4
2154	49.4	0.059	NA	2	95.00	367	1.7
2195	42.2	0.015	NA	2	48.90	427	2.5
2242	62.0	0.033	NA	2	103.00	351	1.2
2284	40.2	0.028	NA	2	93.60	349	1.7
Mean	52.5	0.0	NA	1.5	91.2	465.9	2.1
Standard Deviation	8.1	0.0	NA	0.0	31.6	109.1	0.6
Relative Standard Deviation%	31	102	NA	0	69	47	59

*Relative standard deviation is the standard deviation divided by the mean at the 95% confidence level.

Table A5. Variability shown by plant tissue samples (Group 1F analysis).

Spruce Needles (1F) - (BHH)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	198	160	55	250	51	135	63
Field	106	138	53	119	45	69	60
Sample	32	38	21	34	18	115	39
Total/Field Ratio	**1.9**	**1.2**	**1.0**	**2.1**	**1.1**	**2.0**	**1.0**
White Spruce-top Twigs (1F) - (BHH)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	252	470	86	162	47	161	104
Field	86	89	24	54	27	49	32
Sample	46	91	27	55	28	65	26
Lab	22	90	9	28	5	31	24
Total/Field Ratio	**2.9**	**5.3**	**3.5**	**3.0**	**1.8**	**3.3**	**3.3**
Black Spruce-top Twigs (1F) - (BHH)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	273	336	50	162	43	160	140
Field	152	66	33	79	11	91	66
Sample	16	87	10	57	8	42	30
Lab	17	52	11	34	4	11	35
Total/Field Ratio	**1.8**	**5.1**	**1.5**	**2.0**	**3.9**	**1.8**	**2.1**

Table A6. Variability shown by A-horizon soil (Group 1F analysis).

A-horizon Soil (1F) - (BHH)	Ni	Au	P	Cr	Mg	Ti	Nb
Total	106	1319	73	121	88	75	106
Field	40	161	55	92	43	48	38
Sample	29	85	32	42	9	58	23
Total/Field Ratio	**2.7**	**8.2**	**1.3**	**1.3**	**2.1**	**1.6**	**2.8**
A-horizon Soil (1F) - (ML)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	249	684	50	231	263	225	300
Field	328	133	33	320	323	259	256
Sample	72	101	23	66	58	73	102
Total/Field Ratio	**0.8**	**5.2**	**1.5**	**0.7**	**0.8**	**0.9**	**1.2**
A-horizon (1F) Soil - (Legend)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	135	120	64	85	108	75	81
Field	97	89	23	57	51	55	53
Sample	29	148	27	52	33	18	44
Total/Field Ratio	**1.4**	**1.3**	**2.8**	**1.5**	**2.1**	**1.4**	**1.5**

Table A7. Variability shown by B-horizon soils (Group 1F and Enzyme Analysis).

B-horizon Soil (1F) - (BHH)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	71	240	97	38	59	79	43
Field	32	144	54	26	23	56	19
Sample	25	276	6	22	15	27	25
Lab	7	219	3	10	4	14	10
Total/Field Ratio	**2.2**	**1.7**	**1.8**	**1.4**	**2.5**	**1.4**	**2.3**
B-horizon Soil (EZ) - (BHH)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	158	174	NA	73	113	266	244
Field	98	152	NA	44	46	112	104
Sample	41	99	NA	58	89	57	74
Lab	42	73	NA	36	48	51	31
Total/Field Ratio	**1.6**	**1.1**	NA	**1.7**	**2.4**	**2.4**	**2.3**
B-horizon Soil (1F) - (ML)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	270	379	113	202	255	261	273
Field	99	107	108	41	29	31	122
Sample	8	141	20	10	9	12	46
Lab	3	142	8	4	3	7	21
Total/Field Ratio	**2.7**	**3.5**	**1.0**	**4.9**	**8.9**	**8.5**	**2.2**
B-horizon Soil (1F) - (Legend)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	61	97	103	43	44	69	77
Field	26	58	16	27	18	47	32
Sample	12	61	11	17	11	17	12
Lab	5	67	4	7	6	19	18
Total/Field Ratio	**2.4**	**1.7**	**6.4**	**1.6**	**2.4**	**1.5**	**2.4**
B-horizon Soil (EZ) - (Legend)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	113	165	NA	59	106	133	128
Field	77	89	NA	55	59	72	47
Sample	79	180	NA	74	60	30	53
Lab	56	169	NA	47	40	37	71
Total/Field Ratio	**1.5**	**1.9**	NA	**1.1**	**1.8**	**1.9**	**2.7**

Table A8. Variability shown by C-horizon till (Group 1F and Enzyme Analysis)

C-horizon Till (1F) - (BHH)	Ni	Au	P	Cr	Mg	Ti	Nb
Total	56	65	26	32	47	115	70
Field	45	46	24	38	30	96	55
Sample	9	45	7	9	10	28	29
Lab	6	52	8	5	5	46	18
Total/Field Ratio	**1.3**	**1.4**	**1.1**	**0.8**	**1.6**	**1.2**	**1.3**
C-horizon Till (EZ) - (BHH)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	147	126	NA	89	177	205	152
Field	64	100	NA	60	147	128	97
Sample	58	53	NA	59	45	106	56
Lab	47	73	NA	58	43	143	18
Total/Field Ratio	**2.3**	**1.3**	NA	**1.5**	**1.2**	**1.6**	**1.6**
C-horizon Till (1F) - (ML)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	246	71	132	205	248	239	539
Field	101	37	62	86	117	166	578
Sample	4	82	13	4	4	13	40
Lab	5	22	8	3	6	15	16
Total/Field Ratio	**2.4**	**1.9**	**2.1**	**2.4**	**2.1**	**1.4**	**0.9**
C-horizon Till (1F) - (Legend)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	66	61	108	33	31	77	76
Field	57	41	32	16	27	34	37
Sample	13	58	8	6	3	0	29
Lab	6	30	11	15	8	17	48
Total/Field Ratio	**1.2**	**1.5**	**3.4**	**2.1**	**1.1**	**2.2**	**2.0**
C-horizon Till (EZ) - (Legend)	**Ni**	**Au**	**P**	**Cr**	**Mg**	**Ti**	**Nb**
Total	88	221	NA	79	119	157	159
Field	62	411	NA	52	68	128	130
Sample	41	142	NA	66	30	112	120
Lab	33	100	NA	37	42	99	111
Total/Field Ratio	**1.4**	**0.5**	NA	**1.5**	**1.8**	**1.2**	**1.2**

Appendix 2 - Analytical Methods Used to Analyze Standards, Vegetation, A- and B-Horizon Soils, and C-Horizon Till Samples

GROUP 1F-MS ULTRATRACE BY ICP-MS
(Acme Analytical Laboratories Ltd., Vancouver, British Columbia)

Group 1F-MS: A 1, 15 or 30 gm sample split is digested in aqua regia. Results are total to near total for precious and base metals and partial for rock-forming elements*. The 15 or 30 gm option is recommended for reducing the nugget effect for elements in rare or coarse-grained minerals (e.g., Au). Intended for lean geological materials, samples undergo a primary ICP-ES scan.

	*LDL	**UDL		LDL	UDL		LDL	UDL
Au	0.2 ppb	100 ppm	Mn*	1 ppm	10000 ppm	Zn	0.1 ppm	10000 ppm
Ag	2 ppb	100 ppm	Mo	0.01 ppm	2000 ppm	Be	1 ppm	1000 ppm
Al*	0.01 %	10 %	Na*	0.001 %	10 %	Ce	0.02 ppm	2000 ppm
As	0.1 ppm	10000 ppm	Ni*	0.1 ppm	10000 ppm	Cs	0.1 ppm	2000 ppm
B*	1 ppm	2000 ppm	P*	0.001 %	5 %	Ge	-	100 ppm
Ba*	0.5 ppm	10000 ppm	Pb	0.01 ppm	10000 ppm	Hf	0.02 ppm	1000 ppm
Bi	0.02 ppm	2000 ppm	S*	0.01 %	10 %	In	-	1000 ppm
Ca*	0.01 %	40 %	Sb	0.02 ppm	2000 ppm	Li	0.2 ppm	2000 ppm
Au	0.2 ppb	100 ppm	Sc*	0.1 ppm	100 ppm	Nb	0.04 ppm	2000 ppm
Ag	2 ppb	100 ppm	Se	0.1 ppm	100 ppm	Rb	0.1 ppm	2000 ppm
Al*	0.01 %	10 %	Sr*	0.5 ppm	10000 ppm	Re	-	1000 ppm
As	0.1 ppm	10000 ppm	Te	0.02 ppm	100 ppm	Sn	0.1 ppm	100 ppm
B*	1 ppm	2000 ppm	Th*	0.1 ppm	2000 ppm	Ta	0.1 ppm	2000 ppm
Ba*	0.5 ppm	10000 ppm	Ti*	0.001 %	10 %	Y	0.1 ppm	2000 ppm
Bi	0.02 ppm	2000 ppm	Tl	0.02 ppm	100 ppm	Zr	0.2 ppm	2000 ppm
Ca*	0.01 %	40 %	U*	0.1 ppm	2000 ppm	Pt	2 ppb	500 ppb
Cd	0.01 ppm	2000 ppm	V*	2 ppm	10000 ppm	Pd	10 ppb	500 ppb
Co	0.1 ppm	2000 ppm	W*	0.2 ppm	100 ppm	Os	1 ppb	500 ppb
Cr*	0.5 ppm	10000 ppm						
Cu	0.01 ppm	10000 ppm						
Fe*	0.01 %	40 %						
Hg	5 ppb	100 ppm						
Ga	0.1 ppm	100 ppm						
K*	0.01 %	10 %						
La*	0.5 ppm	10000 ppm						
Mg*	0.01 %	30 %						

***LDL – Lower detection limit** ****UDL – Upper detection limit**

GROUP 1ENZ WEAK LEACHES BY ICP-MS
(Activation Laboratories Ltd., Ancaster, Ontario)

Strong digestions and leaches that indiscriminately attack all mineral phases in a sample can mask the trace of blind or buried mineralization evolving elements via groundwater or vapour. The following leaches preferentially attack this mobilized, weakly bound fraction of elements, thereby enhancing anomaly to background contrast. These methods are not suitable for rocks.

Group 1ENZ: Activation Laboratories' Enhanced Enzyme Leach by ICP Mass Spectrometer that uses a unique self-limiting enzyme reaction to attack amorphous manganese oxides. Case studies have shown this medium to effectively delineate deeply buried mineral deposits.

*LDL		LDL		LDL	
Au	0.005 ppb	Hg	0.1 ppb	Sb	0.01 ppb
Ag	0.1 ppb	Ho	0.01 ppb	Sc	20 ppb
As	0.1 ppb	I	0.5 ppb	Se	1 ppb
Ba	0.5 ppb	In	0.01 ppb	Sm	0.01 ppb
Be	0.1 ppb	La	0.01 ppb	Sn	0.1 ppb
Bi	0.05 ppb	Li	0.5 ppb	Sr	0.1 ppb
Br	1 ppb	Lu	0.01 ppb	Ta	0.01 ppb
Cd	0.1 ppb	Mn	0.1 ppb	Tb	0.01 ppb
Ce	0.05 ppb	Mo	0.1 ppb	Te	0.5 ppb
Cl	1000 ppb	Nb	0.1 ppb	Th	0.01 ppb
Co	0.2 ppb	Nd	0.01 ppb	Ti	20 ppb
Cs	0.01 ppb	Ni	0.5 ppb	Tl	0.005 ppb
Cu	0.5 ppb	Os	0.5 ppb	Tm	0.01 ppb
Dy	0.01 ppb	Pb	0.1 ppb	U	0.01 ppb
Er	0.01 ppb	Pd	0.5 ppb	V	0.1 ppb
Eu	0.01 ppb	Pr	0.01 ppb	W	0.1 ppb
Ga	1 ppb	Pt	0.5 ppb	Y	0.05 ppb
Gd	0.01 ppb	Rb	0.1 ppb	Yb	0.01 ppb
Ge	0.05 ppb	Re	0.001 ppb	Zn	5 ppb
Hf	0.01 ppb	Ru	0.5 ppb	Zr	0.1 ppb

***LDL – Lower detection limit**

Appendix 3 – Sample Descriptions

Media Type

AsB	Aspen Bark
WiT	Willow Twigs
SpN	Spruce Needles
Om	Peat
SPS	Subpeat sediment
Ah	A-horizon soil (humus)
B	B-horizon soil
C	C-horizon till

Sample Type

N	Normal
FD	Field duplicate
SD	Sample duplicate
LD	Lab duplicate

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
1001	AsB	N	581810	6293766	581729	6293977	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200S			15-40	8	10	16	75		
1002	AsB	N	581808	6293813	581728	6294024	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	150S			20-50	10	14	24	95		
1003	AsB	N	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S			20-50	6	8	16	100		
1004	AsB	SD	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S			20-50	6	8	16	100		
1005	AsB	N	581806	6293925	581726	6294140	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50S			40-100	9	11	15	110		
1006	AsB	N	581800	6293975	581720	6294190	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	Baseline			40-90	8	10	20	110		
1007	AsB	N	581768	6294011	581688	6294226	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50N			50-100	10	14	27	95		
1008	AsB	FD	581773	6294013	581693	6294228	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50N			50-150	7	14	27	95		
1009	AsB	N	581766	6294067	581686	6294282	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	100N			20-100	12	15	36	90		
1010	AsB	N	581778	6294165	581698	6294380	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	200N			20-100	10	12	29	100		
1011	AsB	N	581742	6294260	581662	6294475	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	300N			20-50	8	10	24	95		
1013	AsB	N	581760	6294385	581680	6294600	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	400N			20-50	12	15	32	100		
1014	AsB	N	581760	6294468	581680	6294683	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	500N			20-50	8	10	29	75		
1015	AsB	N	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	600N			20-50	12	15	35	100		
1016	AsB	SD	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	600N			20-50	12	15	35	100		
1017	AsB	N	581760	6293985	581680	6294200	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	0			20-100	8	10	29	100		
1018	AsB	N	581890	6293967	581810	6294182	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100E			20-150	8	12	29	75		
1019	AsB	N	581976	6293961	581896	6294176	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200E			20-120	10	12	30	100		
1020	AsB	FD	581976	6293961	581896	6294176	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200E			20-150	12	14	26	50		
1181	AsB	N	581175	6293955	581095	6294170	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	600W			25-60	10	15	28	75		
1182	AsB	N	581256	6294007	581176	6294222	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	500W			25-52	8	10	18	70		
1183	AsB	N	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400W			25-50	20	40	50	85		
1184	AsB	SD	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400W			25-50	20	40	50	85		
1185	AsB	N	581484	6293972	581404	6294187	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	300W			25-80	15	35	40	60		
1186	AsB	N	581567	6293959	581487	6294174	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200W			25-50	5	7	18	75		
1187	AsB	N	582066	6293967	581986	6294182	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	300E			20-150	8	12	30	40		
1188	AsB	N	582162	6293979	582082	6294194	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400E			20-80	8	10	18	85		
1189	AsB	N	582266	6293975	582186	6294190	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	500E			20-50	7	8	18	115		
2001	WiT	N	581810	6293766	581729	6293977	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200S			5-20						
2002	WiT	N	581808	6293813	581728	6294024	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	150S			5-10						
2003	WiT	N	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S			5-10						
2004	WiT	SD	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S			5-10						
2005	WiT	N	581806	6293925	581726	6294140	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50S			10-20						

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
2006	WiT	N	581800	6293975	581720	6294190	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	Baseline			10-20						
2007	WiT	N	581768	6294011	581688	6294226	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50N			10-20						
2008	WiT	FD	581773	6294013	581693	6294228	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50N			10-20						
2009	WiT	N	581766	6294067	581686	6294282	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	100N			5-20						
2010	WiT	N	581778	6294165	581698	6294380	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	200N			5-20						
2011	WiT	N	581742	6294260	581662	6294475	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	300N			5-10						
2013	WiT	N	581760	6294385	581680	6294600	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	400N			5-10						
2014	WiT	N	581760	6294468	581680	6294683	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	500N			5-10						
2015	WiT	N	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	600N			5-10						
2016	WiT	SD	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	600N			5-10						
2017	WiT	N	581760	6293985	581680	6294200	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	0			10-15						
2018	WiT	N	581890	6293967	581810	6294182	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100E			5-15						
2019	WiT	N	581976	6293961	581896	6294176	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200E			5-10						
2020	WiT	FD	581976	6293961	581896	6294176	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200E			5-10						
2181	WiT	N	581175	6293955	581095	6294170	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	600W			10						
2182	WiT	N	581256	6294007	581176	6294222	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	500W			10						
2183	WiT	N	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400W			10-20						
2184	WiT	SD	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400W			10-20						
2185	WiT	N	581484	6293972	581404	6294187	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	300W			10						
2186	WiT	N	581567	6293959	581487	6294174	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200W			10						
2187	WiT	N	582066	6293967	581986	6294182	11	84B	7/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	300E			10-15						
2188	WiT	N	582162	6293979	582082	6294194	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400E			5-10						
2189	WiT	N	582266	6293975	582186	6294190	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	500E			5-10						
3045	SpN	N	619475	6320080	619396	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL				17	24	36	60		
3046	SpN	N	619525	6320080	619446	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL				26	36	43	90		
3047	SpN	N	619590	6320080	619511	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL				18	28	35	90		
3049	SpN	N	619615	6320080	619536	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL			16	20	33	100			
3050	SpN	N	619675	6320080	619596	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL				14	30	45	140		
3051	SpN	N	619725	6320080	619646	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL				25	39	50	100		
3052	SpN	SD	619725	6320080	619646	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL				25	39	50	100		
3053	SpN	N	619725	6320130	619646	6320346	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	619725				20	30	50	100		
3054	SpN	N	619725	6320180	619646	6320396	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	619725				10	15	30	75		
3055	SpN	N	619725	6320230	619646	6320446	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725				8	10	30	70		

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
3056	SpN	FD	619725	6320230	619646	6320446	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725				10	12	35	70		
3057	SpN	N	619725	6320280	619646	6320496	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725				10	12	35	70		
3058	SpN	N	619725	6320330	619646	6320546	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725									
3059	SpN	N	619450	6320083	619371	6320299	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	BL				10	13	32	105		
3061	SpN	N	619380	6320071	619301	6320287	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain					10	12	35	70		
3062	SpN	N	619260	6320050	619181	6320266	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain					10	15	35	70		
3063	SpN	N	619162	6320072	619083	6320288	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain					8	10	33	75		
3064	SpN	SD	619162	6320072	619083	6320288	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain					8	10	33	70		
3065	SpN	N	619067	6320010	618988	6320226	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny					10	14	39	95		
3066	SpN	N	618972	6320004	618893	6320220	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny					10	12	32	105		
3067	SpN	N	618861	6320022	618782	6320238	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny					8	10	30	100		
3068	SpN	FD	618861	6320022	618782	6320238	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny					9	12	32	100		
4001	Om	N	581705	6293957	581625	6294172	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		0	110-150	6.63						50	150
4002	Om	N	581690	6293986	581610	6294201	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		50N	100-220	6.7						50	170
4003	Om	N	581666	6294021	581586	6294236	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		100N	100-170	6.63						50	170
4004	Om	N	581666	6294021	581586	6294236	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		100N	110-170	6.63						50	170
4005	Om	N	581620	6294069	581540	6294284	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		150N	100-180	6.02						50	180
4006	Om	N	581603	6294122	581523	6294337	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		200N	110-180	6.37						50	180
4007	Om	N	581611	6294179	581531	6294394	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		250N	70-140	Dry						50	140
4008	Om	N	581593	6294193	581513	6294408	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		250N	70-140	Dry						50	140
4009	Om	N	581719	6293911	581639	6294126	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		50S	110-240	6.41						50	240
4010	Om	N	581735	6293869	581655	6294084	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		100S	110-240	6.39						50	240
4011	Om	N	581748	6293819	581668	6294034	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		150S	110-280	6.27						50	280
4011	Om	LD	581748	6293819	581668	6294034	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		150S	110-280	6.27						50	280
4013	Om	N	581771	6293769	581691	6293984	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		200S	110-270	6.89						50	270
4014	Om	N	581800	6293723	581720	6293938	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		250S	110-230	6.74						50	230
4015	Om	N	581829	6293685	581749	6293900	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		300S	110-200	6.62						50	200
4016	Om	N	581829	6293685	581749	6293900	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		300S	110-210	6.62						50	210
4017	Om	N	581855	6293635	581775	6293850	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		350S	130-200	7.29						50	200
4018	Om	N	581880	6293587	581800	6293802	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		400S	160-250	6.74						50	250
4019	Om	N	581900	6293539	581820	6293754	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		450S	110-320	7						50	320
4020	Om	N	581897	6293531	581817	6293746	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		450S	130-310	6.68						50	310
4021	Om	N	581920	6293490	581840	6293705	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		500S	130-320	6.8						50	320

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
4022	Om	N	581930	6293454	581850	6293669	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		550S	140-330	7.24						50	330
4023	Om	N	581957	6293404	581877	6293619	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		600S	140-330	7.2						50	330
4023	Om	LD	581957	6293404	581877	6293619	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		600S	140-330	7.2						50	330
4025	Om	N	582003	6293314	581923	6293529	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		700S	130-380	7.49						50	380
4026	Om	N	582053	6293232	581973	6293447	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		800S	140-350	8.27						50	350
5001	SPS	N	581705	6293957	581625	6294172	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		0	150-300								
5002	SPS	N	581690	6293986	581610	6294201	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		50N	220-270								
5003	SPS	N	581666	6294021	581586	6294236	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		100N	230-280								
5004	SPS	N	581666	6294021	581586	6294236	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		100N	220-280								
5005	SPS	N	581620	6294069	581540	6294284	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		150N	180-260								
5006	SPS	N	581603	6294122	581523	6294337	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		200N	180-250								
5007	SPS	N	581611	6294179	581531	6294394	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		250N	140-180								
5008	SPS	N	581593	6294193	581513	6294408	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		250N	140-170								
5009	SPS	N	581719	6293911	581639	6294126	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		50S	240-280								
5010	SPS	N	581735	6293869	581655	6294084	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		100S	240-300								
5010	SPS	LD	581735	6293869	581655	6294084	11	84B	7/11/00	TQ155	D.S. & B.M.	25-30 m		100S	240-300								
5011	SPS	N	581748	6293819	581668	6294034	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		150S	280-320								
5011	SPS	LD	581748	6293819	581668	6294034	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		150S	280-320								
5013	SPS	N	581771	6293769	581691	6293984	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		200S	270-330								
5014	SPS	N	581800	6293723	581720	6293938	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		250S									
5015	SPS	N	581829	6293685	581749	6293900	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		300S	200-260								
5016	SPS	N	581829	6293685	581749	6293900	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		300S	210-260								
5016	SPS	SD	581829	6293685	581749	6293900	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		300S	210-260								
5017	SPS	N	581855	6293635	581775	6293850	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		350S	200-250								
5018	SPS	N	581880	6293587	581800	6293802	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		400S	250-310								
5019	SPS	N	581900	6293539	581820	6293754	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		450S	320-340								
5020	SPS	N	581897	6293531	581817	6293746	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		450S	310-340								
5021	SPS	N	581920	6293490	581840	6293705	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		500S	320-370								
5022	SPS	N	581930	6293454	581850	6293669	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		550S	330-390								
5023	SPS	N	581957	6293404	581877	6293619	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		600S	330-380								
5023	SPS	LD	581957	6293404	581877	6293619	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		600S	330-380								
5025	SPS	N	582003	6293314	581923	6293529	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		700S	380-395								
5026	SPS	N	582053	6293232	581973	6293447	11	84B	7/16/00	TQ155	D.S. & B.M.	25-30 m		800S	350-400								

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
6001	Ah	N	581810	6293766	581729	6293977	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200S	10								
6002	Ah	N	581808	6293813	581728	6294024	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	150S	14								
6003	Ah	N	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S	8								
6004	Ah	SD	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S	8								
6005	Ah	N	581806	6293925	581726	6294140	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50S	11								
6006	Ah	N	581800	6293975	581720	6294190	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	Baseline	10								
6007	Ah	N	581768	6294011	581688	6294226	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50N	14								
6008	Ah	FD	581773	6294013	581693	6294228	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50N	8								
6009	Ah	N	581766	6294067	581686	6294282	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	100N	15								
6010	Ah	N	581778	6294165	581698	6294380	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	200N	12								
6011	Ah	N	581742	6294260	581662	6294475	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	300N	10								
6013	Ah	N	581760	6294385	581680	6294600	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	400N	15								
6014	Ah	N	581760	6294468	581680	6294683	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	500N	10								
6015	Ah	N	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	600N	15								
6016	Ah	SD	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	600N	15								
6017	Ah	N	581760	6293985	581680	6294200	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	0	10								
6018	Ah	N	581890	6293967	581810	6294182	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100E	12								
6019	Ah	N	581976	6293961	581896	6294176	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200E	12								
6020	Ah	FD	581976	6293961	581896	6294176	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200E	14								
6021	Ah	N	582564	6306177	582484	6306393	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	0	10			8	10	25	100		
6022	Ah	N	582581	6306211	582501	6306427	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	50N	10			8	10	29	85		
6023	Ah	N	582589	6306265	582509	6306481	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	100N	11			9	11	29	85		
6025	Ah	N	582587	6306318	582507	6306534	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	150N	12			9	12	30	95		
6026	Ah	N	582580	6306369	582500	6306585	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	200N	19			13	19	39	105		
6027	Ah	N	582576	6306469	582496	6306685	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	300N	20			15	20	40	150		
6028	Ah	SD	582576	6306469	582496	6306685	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	300N	20			15	20	40	150		
6029	Ah	N	582558	6306563	582478	6306779	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	400N	12			10	12	30	105		
6030	Ah	N	582556	6306669	582476	6306885	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	500N	37			25	37	40	95		
6031	Ah	N	582551	6306773	582471	6306989	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	600N	30			20	30	50	90		
6032	Ah	FD	582532	6306776	582452	6306992	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	600N	30			20	30	50	90		
6033	Ah	N	582566	6306848	582486	6307064	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	700N	15			10	15	30	70		
6034	Ah	N	582589	6306107	582509	6306323	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	50S	13			10	13	40	120		
6035	Ah	N	582600	6306061	582520	6306277	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	100S	16			13	16	35	80		

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
6036		LD	582600	6306061	582520	6306277	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m											
6037	Ah	N	582605	6306001	582525	6306217	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	150S	17			12	17	40	155		
6038	Ah	N	582605	6305950	582525	6306166	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	200S	14			10	14	39	90		
6039	Ah	N	582597	6305858	582517	6306074	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	300S	13			10	13	30	85		
6040	Ah	SD	582597	6305858	582517	6306074	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	300S	13			10	13	30	85		
6041	Ah	N	582636	6305752	582556	6305968	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	400S	14			9	14	40	90		
6042	Ah	N	582607	6305653	582527	6305869	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Rain	500S	14			12	14	40	60		
6043	Ah	N	582627	6305556	582547	6305772	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Rain	600S	12			10	12	26	120		
6044	Ah	FD	582629	6305558	582549	6305774	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Rain	600S	12			12	15	35	110		
6045	Ah	N	619475	6320080	619396	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	24								
6046	Ah	N	619525	6320080	619446	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	36								
6047	Ah	N	619590	6320080	619511	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	28								
6049	Ah	N	619615	6320080	619536	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	20								
6050	Ah	N	619675	6320080	619596	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	30								
6051	Ah	N	619725	6320080	619646	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	39								
6052	Ah	SD	619725	6320080	619646	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	39								
6053	Ah	N	619725	6320130	619646	6320346	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	619725	30								
6054	Ah	N	619725	6320180	619646	6320396	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	619725	15								
6055	Ah	N	619725	6320230	619646	6320446	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	10								
6056	Ah	FD	619725	6320230	619646	6320446	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	12								
6057	Ah	N	619725	6320280	619646	6320496	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	12								
6058	Ah	N	619725	6320330	619646	6320546	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	14			12	14	34	70		
6059	Ah	N	619450	6320083	619371	6320299	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	BL	13								
6060		LD	619450	6320083	619371	6320299	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m											
6061	Ah	N	619380	6320071	619301	6320287	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		12								
6062	Ah	N	619260	6320050	619181	6320266	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		15								
6063	Ah	N	619162	6320072	619083	6320288	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		10								
6064	Ah	SD	619162	6320072	619083	6320288	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		10								
6065	Ah	N	619067	6320010	618988	6320226	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		14								
6066	Ah	N	618972	6320004	618893	6320220	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		12								
6067	Ah	N	618861	6320022	618782	6320238	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		10								
6068	Ah	FD	618861	6320022	618782	6320238	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		12								

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
6069	Ah	N	456190	6144582	456110	6144797	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			10	12	30	50		
6070	Ah	N	456088	6144575	456008	6144790	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			10	12	30	45		
6071	Ah	N	455987	6144594	455907	6144809	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			10	12	35	45		
6072	Ah	N	455878	6144579	455798	6144794	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			8								
6073	Ah	N	455783	6144581	455703	6144796	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			13			10	13	35	45		
6074	Ah	N	455680	6144556	455600	6144771	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			9	10	18	60		
6075	Ah	N	455585	6144577	455505	6144792	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			9	10	20			
6076	Ah	N	455478	6144584	455398	6144799	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			9			7	9	36	57		
6077	Ah	N	455405	6144572	455325	6144787	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			8			7	8	35			
6078	Ah	FD	455405	6144572	455325	6144787	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			8			7	8	35			
6079	Ah	SD	455405	6144572	455325	6144787	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			8			7	8	35			
6082	Ah	N	454941	6145394	454861	6145609	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			9			7	9	27	60		
6083	Ah	N	454987	6145387	454907	6145602	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			8	10	30	60		
6084	Ah	N	455037	6145379	454957	6145594	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			10	12	30	?		
6085	Ah	N	455081	6145390	455001	6145605	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			10	12	30	?		
6086	Ah	N	455134	6145393	455054	6145608	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			26			15	26	43	?		
6087	Ah	N	455175	6145369	455095	6145584	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			9	12	40	50		
6088	Ah	N	454888	6145396	454808	6145611	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			9			7	9	33	?		
6089	Ah	N	454846	6145385	454766	6145600	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			14			10	14	30	?		
6090	Ah	N	454783	6145403	454703	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			8	10	35	?		

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
6091	Ah	N	454732	6145391	454652	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			8	10	39	65		
6092	Ah	FD	454732	6145391	454652	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			7			8	10	39	65		
6093	Ah	SD	454732	6145391	454652	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			7			8	10	39	65		
6096	Ah	N	454693	6145342	454613	6145557	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			13			9	13	50	?		
6097	Ah	N	454629	6145393	454549	6145608	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			16			13	16	42	75		
6098	Ah	N	454574	6145387	454494	6145602	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			8			7	8	23	60		
6099	Ah	N	454608	6145601	454528	6145816	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			10	12	30	90		
6100	Ah	N	454564	6145617	454484	6145832	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			6			5	6	27	?		
6101	Ah	N	454505	6145606	454425	6145821	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			10	12	36	?		
6102	Ah	N	454505	6145606	454425	6145821	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			13			10	13	30	?		
6103	Ah	N	454660	6145593	454580	6145808	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			7			5	7	47	?		
6104	Ah	N	454704	6145583	454624	6145798	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			8			6	8	28	?		
6105	Ah	N	454765	6145571	454685	6145786	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			8	10	33	?		
6106	Ah	FD	454765	6145571	454685	6145786	11	83N		Mountain Lake	D.S. & B.M	0-5 m			8			7	8	30	?		
6107	Ah	SD	454765	6145571	454685	6145786	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			8			7	8	30	?		
6110	Ah	N	454829	6145585	454749	6145800	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			9			7	9	33	?		
6111	Ah	N	454878	6145615	454798	6145830	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			9	12	30	?		
6112	Ah	N	454911	6145589	454831	6145804	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			8	10	29	?		
6113	Ah	N	454962	6145588	454882	6145803	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			10	12	37	?		
6114	Ah	N	455003	6145533	454923	6145748	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			9	12	26	?		

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
6115	Ah	N	455027	6145525	454947	6145740	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			9	10	29	?		
6116	Ah	N	455080	6145468	455000	6145683	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			17			13	17	33	?		
6117	Ah	N	453850	6145418	453770	6145633	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			9			8	10	37	?		
6118	Ah	N	453943	6145391	453863	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			9			8	9	36	?		
6119	Ah	N	454036	6145403	453956	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			7			6	7	37	100		
6120	Ah	FD	454036	6145403	453956	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			4			3	4	30	?		
6121	Ah	SD	454036	6145403	453956	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m						3	4	30	?		
6124	Ah	N	454137	6145396	454057	6145611	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			8	10	34	105		
6125	Ah	N	454438	6145402	454358	6145617	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			6			4	6	30	85		
6126	Ah	N	454342	6145400	454262	6145615	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			7			5	7	55	65		
6127	Ah	N	454246	6145402	454166	6145617	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			8	10	37	120		
6128	Ah	N	455177	6144665	455097	6144880	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			13			10	13	33	?		
6129	Ah	N	455069	6144606	454989	6144821	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			10	12	31	?		
6130	Ah	N	454983	6144602	454903	6144817	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			21	28	53	?		
6131	Ah	N	454898	6144696	454818	6144911	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			15			18	33	60	?		
6132	Ah	N	455813	6144689	455733	6144904	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			15			9	26	38	?		
6133	Ah	N	454720	6144734	454640	6144949	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			10	29	59	?		
6134	Ah	FD	454720	6144734	454640	6144949	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			15			28	45	60	?		
6135	Ah	SD	454720	6144734	454640	6144949	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			15			28	45	60	?		
6138	Ah	N	454644	6144794	454564	6145009	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			20			42	62	70	?		

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
6139	Ah	N	454551	6144881	454471	6145096	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			20			20	39	56	?		
6140	Ah	N	454562	6144976	454482	6145191	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			8			6	8	52	?		
6141	Ah	N	454581	6145095	454501	6145310	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			7			5	7	36	120		
6142	Ah	N	387150	6340543	387085	6340765	12	84H		Legend	D.S. & R.G.	12 m	Sunny	1000E	10			7	10	47	?		
6143	Ah	N	387102	6340513	387037	6340735	12	84H		Legend	D.S. & R.G.	12 m	Sunny	950E	5			3	5	39	90		
6144	Ah	N	387044	6340517	386979	6340739	12	84H		Legend	D.S. & R.G.	12 m	Sunny	900E	20			15	35	37	?		
6145	Ah	N	386958	6340534	386893	6340756	12	84H		Legend	D.S. & R.G.	12 m	Sunny	800E	12			4	12	35	?		
6146	Ah	N	386903	6340525	386838	6340747	12	84H		Legend	D.S. & R.G.	12 m	Sunny	750E	6			4	6	40	?		
6147	Ah	N	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m	Sunny	700E	12			9	12	40	?		
6148	Ah	FD	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m	Sunny	700E	10			9	10	35	?		
6149	Ah	SD	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m		700E	10			9	10	35	?		
6150		LD	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m											
6152	Ah	N	386655	6340532	386590	6340754	12	84H		Legend	D.S. & R.G.	12 m		500E	3			2	3	30	?		
6153	Ah	N	386607	6340533	386542	6340755	12	84H		Legend	D.S. & R.G.	12 m		450E	12			10	12	33	?		
6154	Ah	N	386573	6340545	386508	6340767	12	84H		Legend	D.S. & R.G.	12 m		400E	6			5	6	35	?		
6155	Ah	N	386503	6340540	386438	6340762	12	84H		Legend	D.S. & R.G.	12 m		350E	20			20	52	?	?		
6156	Ah	N	386451	6340566	386386	6340788	12	84H		Legend	D.S. & R.G.	12 m		300E	6			5	6	30	?		
6157	Ah	N	386394	6340600	386329	6340822	12	84H		Legend	D.S. & R.G.	12 m		250E	6			5	6	30	?		
6158	Ah	N	386369	6340603	386304	6340825	12	84H		Legend	D.S. & R.G.	12 m		200E	10			10	15	40	?		
6159	Ah	N	386327	6340628	386262	6340850	12	84H		Legend	D.S. & R.G.	12 m		150E	10			8	10	35	?		
6160	Ah	N	386272	6340649	386207	6340871	12	84H		Legend	D.S. & R.G.	12 m		100E	10			8	10	37	?		
6161	Ah	N	386237	6340674	386172	6340896	12	84H		Legend	D.S. & R.G.	12 m		50E	7			5	7	33	?		
6162	Ah	FD	386227	6340674	386162	6340896	12	84H		Legend	D.S. & R.G.	12 m		40E	13			13	15	35	?		
6163	Ah	SD	386227	6340674	386162	6340896	12	84H		Legend	D.S. & R.G.	12 m		40E	13			13	15	35	?		
6166	Ah	N	386190	6340712	386125	6340934	12	84H		Legend	D.S. & R.G.	12 m		0	14			12	14	37	?		
6167	Ah	N	386152	6340735	386087	6340957	12	84H		Legend	D.S. & R.G.	12 m		50W	3			2	3	42	?		
6168	Ah	N	386106	6340755	386041	6340977	12	84H		Legend	D.S. & R.G.	12 m		100W	10			5	10	36	?		
6169	Ah	N	386062	6340771	385997	6340993	12	84H		Legend	D.S. & R.G.	12 m		150W	14			12	14	38	?		
6170	Ah	N	386028	6340803	385963	6341025	12	84H		Legend	D.S. & R.G.	12 m		200W	7			2	7	40	?		
6171	Ah	N	385979	6340825	385914	6341047	12	84H		Legend	D.S. & R.G.	12 m		250W	7			5	7	33	?		
6172	Ah	N	385924	6340845	385859	6341067	12	84H		Legend	D.S. & R.G.	12 m		300W	9			6	9	44	?		

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
6173	Ah	N	385877	6340867	385812	6341089	12	84H		Legend	D.S. & R.G.	12 m		350W	7			5	7	33	?		
6174	Ah	N	385830	6340886	385765	6341108	12	84H		Legend	D.S. & R.G.	12 m		400W	12			10	12	37	?		
6175	Ah	N	385783	6340905	385718	6341127	12	84H		Legend	D.S. & R.G.	12 m		450W	12			10	12	42	?		
6176	Ah	FD	385783	6340895	385718	6341117	12	84H		Legend	D.S. & R.G.	12 m		450W	10			8	10	50	?		
6177	Ah	SD	385783	6340895	385718	6341117	12	84H		Legend	D.S. & R.G.	12 m		450W	10			8	10	50	?		
6178		LD	385783	6340895	385718	6341117	12	84H		Legend	D.S. & R.G.	12 m											
6180	Ah	N	385735	6340952	385670	6341174	12	84H		Legend	D.S. & R.G.	12 m		500W	10			7	10	40	?		
6181	Ah	N	581175	6293955	581095	6294170	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	600W	10								
6182	Ah	N	581256	6294007	581176	6294222	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	500W	10								
6183	Ah	N	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400W	36								
6184	Ah	SD	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400W	36								
6185	Ah	N	581484	6293972	581404	6294187	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	300W	35								
6186	Ah	N	581567	6293959	581487	6294174	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200W	7								
6187	Ah	N	582066	6293967	581986	6294182	11	84B	7/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	300E	12								
6188	Ah	N	582162	6293979	582082	6294194	11	84B	7/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400E	10								
6189	Ah	N	582266	6293975	582186	6294190	11	84B	7/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	500E	8								
6194	Ah	N	385640	6340975	385575	6341197	12	84H		Legend	D.S. & R.G.	12 m		600W	25			20	25	53	?		
6195	Ah	N	385544	6340945	385479	6341167	12	84H		Legend	D.S. & R.G.	12 m		700W	5			4	5	53	?		
6196	Ah	N	385435	6340954	385370	6341176	12	84H		Legend	D.S. & R.G.	12 m		800W	14			10	14	48	?		
6197	Ah	N	385343	6340947	385278	6341169	12	84H		Legend	D.S. & R.G.	12 m		900W	18			15	18	50	?		
6198	Ah	N	385240	6340954	385175	6341176	12	84H		Legend	D.S. & R.G.	12 m		1000W	6			5	6	50	?		
6199	Ah	N	386522	6341353	386457	6341575	12	84H		Legend	D.S. & R.G.	12 m		750N	14			12	14	45	?		
6200	Ah	N	386477	6341255	386412	6341477	12	84H		Legend	D.S. & R.G.	12 m		650N	17			15	17	63	?		
6201	Ah	N	386427	6341170	386362	6341392	12	84H		Legend	D.S. & R.G.	12 m		550N	6			5	6	33	?		
6202	Ah	N	386383	6341085	386318	6341307	12	84H		Legend	D.S. & R.G.	12 m		450N	8			7	8	43	?		
6203	Ah	FD	386393	6341085	386328	6341307	12	84H		Legend	D.S. & R.G.	12 m		450N	12			8	12	38	?		
6204	Ah	SD	386393	6341085	386328	6341307	12	84H		Legend	D.S. & R.G.	12 m		450N	12			8	12	38	?		
6207	Ah	N	386345	6340989	386280	6341211	12	84H		Legend	D.S. & R.G.	12 m		350N	10			8	10	38	?		
6208	Ah	N	386302	6340890	386237	6341112	12	84H		Legend	D.S. & R.G.	12 m		250N	10			8	10	35	?		
6209	Ah	N	382285	6340869	382220	6341091	12	84H		Legend	D.S. & R.G.	12 m		200N	10			10	14	43	?		
6210	Ah	N	386259	6340823	386194	6341045	12	84H		Legend	D.S. & R.G.	12 m		150N	7			5	7	31	?		
6211	Ah	N	386259	6340773	386194	6340995	12	84H		Legend	D.S. & R.G.	12 m		100N	4			3	4	33	?		
6212	Ah	N	386232	6340734	386167	6340956	12	84H		Legend	D.S. & R.G.	12 m		50N	5			4	5	37	?		

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
6213	Ah	N	386167	6340650	386102	6340872	12	84H		Legend	D.S. & R.G.	12 m		50S	3			2	3	32	?		
6214	Ah	N	386183	6340602	386118	6340824	12	84H		Legend	D.S. & R.G.	12 m		100S	4			3	4	31	?		
6215	Ah	N	386120	6340565	386055	6340787	12	84H		Legend	D.S. & R.G.	12 m		150S	7			5	7	40	?		
6216	Ah	N	454561	6145227	454481	6145442	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			8			5	7	30	?		
6217	Ah	FD	454551	6145227	454471	6145442	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			6	18	50	?		
6218	Ah	SD	454551	6145227	454471	6145442	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			6	18	50	?		
6221	Ah	N	454525	6145311	454445	6145526	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			8			4	8	47	?		
6222	Ah	N	454454	6145385	454374	6145600	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			6	10	39	?		
6223	Ah	N	454427	6145485	454347	6145700	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			8			4	8	30	?		
6224	Ah	N	454420	6145583	454340	6145798	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			6			2	6	33	?		
6225	Ah	N	454307	6145629	454227	6145844	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			9			6	9	30	?		
6226	Ah	N	454306	6145749	454226	6145964	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			12			5	12	30	?		
6227	Ah	N	454280	6145855	454200	6146070	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			10			7	10	30	?		
6228	Ah	N	454245	6145915	454165	6146130	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			5			4	5	30	?		
6229	Ah	N	454211	6145988	454131	6146203	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			7			4	7	38	?		
6230	Ah	N	454185	6146033	454105	6146248	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			5			2	5	26	?		
6231	Ah	FD	454185	6146033	454105	6146248	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			5			2	5	33	?		
6232	Ah	SD	454185	6146033	454105	6146248	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			5			2	5	33	?		
7001	B	N	581810	6293766	581729	6293977	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200S	26								
7002	B	N	581808	6293813	581728	6294024	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	150S	30								
7003	B	N	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S	28								
7004	B	LD	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S	28								
7004	B	SD	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S	28								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
7005	B	N	581806	6293925	581726	6294140	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50S	28								
7006	B	N	581800	6293975	581720	6294190	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	Baseline	28								
7007	B	N	581768	6294011	581688	6294226	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50N	35								
7008	B	FD	581773	6294013	581693	6294228	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50N	28								
7009	B	N	581766	6294067	581686	6294282	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	100N	40								
7010	B	N	581778	6294165	581698	6294380	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	200N	50								
7011	B	N	581742	6294260	581662	6294475	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	300N	35								
7013	B	N	581760	6294385	581680	6294600	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	400N	55								
7014	B	N	581760	6294468	581680	6294683	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	500N	32								
7015	B	N	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	600N	55								
7016	B	LD	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	600N	55								
7016	B	SD	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	600N	55								
7017	B	N	581760	6293985	581680	6294200	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	0	38								
7018	B	N	581890	6293967	581810	6294182	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100E	35								
7019	B	N	581976	6293961	581896	6294176	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200E	35								
7020	B	FD	581976	6293961	581896	6294176	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200E	34								
7021	B	N	582564	6306177	582484	6306393	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	0	35								
7022	B	N	582581	6306211	582501	6306427	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	50N	40								
7023	B	N	582589	6306265	582509	6306481	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	100N	40								
7025	B	N	582587	6306318	582507	6306534	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	150N	40								
7026	B	N	582580	6306369	582500	6306585	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	200N	45								
7027	B	N	582576	6306469	582496	6306685	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	300N	50								
7028	B	LD	582576	6306469	582496	6306685	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	300N	50								
7028	B	SD	582576	6306469	582496	6306685	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	300N	50								
7029	B	N	582558	6306563	582478	6306779	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	400N	40								
7030	B	N	582556	6306669	582476	6306885	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	500N	50								
7031	B	N	582551	6306773	582471	6306989	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	600N	50								
7032	B	FD	582532	6306776	582452	6306992	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	600N	50								
7033	B	N	582566	6306848	582486	6307064	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	700N	50								
7034	B	N	582589	6306107	582509	6306323	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	50S	50								
7035	B	N	582600	6306061	582520	6306277	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	100S	40								
7037	B	N	582605	6306001	582525	6306217	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	150S	50								
7038	B	N	582605	6305950	582525	6306166	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	200S	45								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
7039	B	N	582597	6305858	582517	6306074	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	300S	40								
7040	B	LD	582597	6305858	582517	6306074	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	300S	40								
7040	B	SD	582597	6305858	582517	6306074	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	300S	40								
7041	B	N	582636	6305752	582556	6305968	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	400S	50								
7042	B	N	582607	6305653	582527	6305869	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Rain	500S	40								
7043	B	N	582627	6305556	582547	6305772	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Rain	600S	35								
7044	B	FD	582629	6305558	582549	6305774	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Rain	600S	40								
7045	B	N	619475	6320080	619396	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	60								
7046	B	N	619525	6320080	619446	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	58								
7047	B	N	619590	6320080	619511	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	60								
7049	B	N	619615	6320080	619536	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	40								
7050	B	N	619675	6320080	619596	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	70						0		
7051	B	N	619725	6320080	619646	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	60								
7052	B	LD	619725	6320080	619646	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	60								
7052	B	SD	619725	6320080	619646	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	60								
7053	B	N	619725	6320130	619646	6320346	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	619725	60								
7054	B	N	619725	6320180	619646	6320396	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	619725	40								
7055	B	N	619725	6320230	619646	6320446	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	45								
7056	B	FD	619725	6320230	619646	6320446	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	40								
7057	B	N	619725	6320280	619646	6320496	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	40								
7058	B	N	619725	6320330	619646	6320546	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	40								
7059	B	N	619450	6320083	619371	6320299	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	BL	40								
7061	B	N	619380	6320071	619301	6320287	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		40								
7062	B	N	619260	6320050	619181	6320266	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		40								
7063	B	N	619162	6320072	619083	6320288	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		40								
7064	B	LD	619162	6320072	619083	6320288	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		40								
7064	B	SD	619162	6320072	619083	6320288	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		40								
7065	B	N	619067	6320010	618988	6320226	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		45								
7066	B	N	618972	6320004	618893	6320220	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		40								
7067	B	N	618861	6320022	618782	6320238	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		35								
7068	B	FD	618861	6320022	618782	6320238	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		40								
7069	B	N	456190	6144582	456110	6144797	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
7070	B	N	456088	6144575	456008	6144790	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7071	B	N	455987	6144594	455907	6144809	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7072	B	N	455878	6144579	455798	6144794	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7073	B	N	455783	6144581	455703	6144796	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7074	B	N	455680	6144556	455600	6144771	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			55								
7075	B	N	455585	6144577	455505	6144792	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7076	B	N	455478	6144584	455398	6144799	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7077	B	N	455405	6144572	455325	6144787	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7078	B	FD	455405	6144572	455325	6144787	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7079	B	SD	455405	6144572	455325	6144787	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7080		LD	455405	6144572	455325	6144787	11	83N		Mountain Lake	D.S. & B.M	0-5 m											
7082	B	N	454941	6145394	454861	6145609	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7083	B	N	454987	6145387	454907	6145602	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7084	B	N	455037	6145379	454957	6145594	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7085	B	N	455081	6145390	455001	6145605	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7086	B	N	455134	6145393	455054	6145608	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			50								
7087	B	N	455175	6145369	455095	6145584	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			45								
7088	B	N	454888	6145396	454808	6145611	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7089	B	N	454846	6145385	454766	6145600	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7090	B	N	454783	6145403	454703	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
7091	B	N	454732	6145391	454652	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			45								
7092	B	FD	454732	6145391	454652	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			50								
7093	B	SD	454732	6145391	454652	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			50								
7094		LD	454732	6145391	454652	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
7096	B	N	454693	6145342	454613	6145557	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			55								
7097	B	N	454629	6145393	454549	6145608	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			50								
7098	B	N	454574	6145387	454494	6145602	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35-40								
7099	B	N	454608	6145601	454528	6145816	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7100	B	N	454564	6145617	454484	6145832	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7101	B	N	454505	6145606	454425	6145821	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			42								
7102	B	N	454505	6145606	454425	6145821	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7103	B	N	454660	6145593	454580	6145808	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			55								
7104	B	N	454704	6145583	454624	6145798	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7105	B	N	454765	6145571	454685	6145786	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7106	B	FD	454765	6145571	454685	6145786	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7107	B	SD	454765	6145571	454685	6145786	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7108		LD	454765	6145571	454685	6145786	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
7110	B	N	454829	6145585	454749	6145800	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7111	B	N	454878	6145615	454798	6145830	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7112	B	N	454911	6145589	454831	6145804	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
7113	B	N	454962	6145588	454882	6145803	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			45								
7114	B	N	455003	6145533	454923	6145748	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			32								
7115	B	N	455027	6145525	454947	6145740	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7116	B	N	455080	6145468	455000	6145683	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7117	B	N	453850	6145418	453770	6145633	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			42								
7118	B	N	453943	6145391	453863	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7119	B	N	454036	6145403	453956	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			42								
7120	B	FD	454036	6145403	453956	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7121	B	SD	454036	6145403	453956	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
7122		LD	454036	6145403	453956	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
7124	B	N	454137	6145396	454057	6145611	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7125	B	N	454438	6145402	454358	6145617	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7126	B	N	454342	6145400	454262	6145615	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			60								
7127	B	N	454246	6145402	454166	6145617	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			42								
7128	B	N	455177	6144665	455097	6144880	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7129	B	N	455069	6144606	454989	6144821	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			37								
7130	B	N	454983	6144602	454903	6144817	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			60								
7131	B	N	454898	6144696	454818	6144911	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			65								
7132	B	N	455813	6144689	455733	6144904	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			42								
7133	B	N	454720	6144734	454640	6144949	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			65								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
7134	B	FD	454720	6144734	454640	6144949	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			65								
7135	B	SD	454720	6144734	454640	6144949	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			65								
7136		LD	454720	6144734	454640	6144949	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
7138	B	N	454644	6144794	454564	6145009	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			75								
7139	B	N	454551	6144881	454471	6145096	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-120								
7140	B	N	454562	6144976	454482	6145191	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			60								
7141	B	N	454581	6145095	454501	6145310	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7142	B	N	387150	6340543	387085	6340765	12	84H		Legend	D.S. & R.G.	12 m	Sunny	1000E	55								
7143	B	N	387102	6340513	387037	6340735	12	84H		Legend	D.S. & R.G.	12 m	Sunny	950E	45								
7144	B	N	387044	6340517	386979	6340739	12	84H		Legend	D.S. & R.G.	12 m	Sunny	900E	45				Om				
7145	B	N	386958	6340534	386893	6340756	12	84H		Legend	D.S. & R.G.	12 m	Sunny	800E	40								
7146	B	N	386903	6340525	386838	6340747	12	84H		Legend	D.S. & R.G.	12 m	Sunny	750E	45								
7147	B	N	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m	Sunny	700E	45								
7148	B	FD	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m	Sunny	700E	40								
7149	B	SD	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m		700E	40								
7149		LD	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m											
7150		LD	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G	12 m											
7152	B	N	386655	6340532	386590	6340754	12	84H		Legend	D.S. & R.G.	12 m		500E	35								
7153	B	N	386607	6340533	386542	6340755	12	84H		Legend	D.S. & R.G.	12 m		450E	40								
7154	B	N	386573	6340545	386508	6340767	12	84H		Legend	D.S. & R.G	12 m		400E	40								
7155	B	N	386503	6340540	386438	6340762	12	84H		Legend	D.S. & R.G.	12 m		350E	57				Om				
7156	B	N	386451	6340566	386386	6340788	12	84H		Legend	D.S. & R.G.	12 m		300E	35								
7157	B	N	386394	6340600	386329	6340822	12	84H		Legend	D.S. & R.G.	12 m		250E	30								
7158	B	N	386369	6340603	386304	6340825	12	84H		Legend	D.S. & R.G.	12 m		200E	45								
7159	B	N	386327	6340628	386262	6340850	12	84H		Legend	D.S. & R.G.	12 m		150E	40								
7160	B	N	386272	6340649	386207	6340871	12	84H		Legend	D.S. & R.G.	12 m		100E	45								
7161	B	N	386237	6340674	386172	6340896	12	84H		Legend	D.S. & R.G.	12 m		50E	40								
7162	B	FD	386227	6340674	386162	6340896	12	84H		Legend	D.S. & R.G.	12 m		40E	40								
7163	B	SD	386227	6340674	386162	6340896	12	84H		Legend	D.S. & R.G	12 m		40E	40								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
7163		LD	386227	6340674	386162	6340896	12	84H		Legend	D.S. & R.G.	12 m											
7164		LD	386227	6340674	386162	6340896	12	84H		Legend	D.S. & R.G.	12 m											
7166	B	N	386190	6340712	386125	6340934	12	84H		Legend	D.S. & R.G.	12 m		0	43								
7167	B	N	386152	6340735	386087	6340957	12	84H		Legend	D.S. & R.G.	12 m		50W	50								
7168	B	N	386106	6340755	386041	6340977	12	84H		Legend	D.S. & R.G.	12 m		100W	42								
7169	B	N	386062	6340771	385997	6340993	12	84H		Legend	D.S. & R.G.	12 m		150W	45								
7170	B	N	386028	6340803	385963	6341025	12	84H		Legend	D.S. & R.G.	12 m		200W	45								
7171	B	N	385979	6340825	385914	6341047	12	84H		Legend	D.S. & R.G.	12 m		250W	40								
7172	B	N	385924	6340845	385859	6341067	12	84H		Legend	D.S. & R.G.	12 m		300W	50								
7173	B	N	385877	6340867	385812	6341089	12	84H		Legend	D.S. & R.G.	12 m		350W	40								
7174	B	N	385830	6340886	385765	6341108	12	84H		Legend	D.S. & R.G.	12 m		400W	45								
7175	B	N	385783	6340905	385718	6341127	12	84H		Legend	D.S. & R.G.	12 m		450W	50								
7176	B	FD	385783	6340895	385718	6341117	12	84H		Legend	D.S. & R.G.	12 m		450W	55								
7177	B	SD	385783	6340895	385718	6341117	12	84H		Legend	D.S. & R.G.	12 m		450W	55								
7177		LD	385783	6340895	385718	6341117	12	84H		Legend	D.S. & R.G.	12 m											
7178		LD	385783	6340895	385718	6341117	12	84H		Legend	D.S. & R.G.	12 m											
7180	B	N	385735	6340952	385670	6341174	12	84H		Legend	D.S. & R.G.	12 m		500W	45								
7181	B	N	581175	6293955	581095	6294170	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	600W	45								
7182	B	N	581256	6294007	581176	6294222	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	500W	45								
7183	B	N	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400W	85								
7184	B	SD	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400W	90								
7184		LD	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m											
7185	B	N	581484	6293972	581404	6294187	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	300W	60								
7186	B	N	581567	6293959	581487	6294174	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200W	60								
7187	B	N	582066	6293967	581986	6294182	11	84B	7/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	300E	40								
7188	B	N	582162	6293979	582082	6294194	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400E	60								
7189	B	N	582266	6293975	582186	6294190	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	500E	115								
7194	B	N	385640	6340975	385575	6341197	12	84H		Legend	D.S. & R.G.	12 m		600W	60				Om				
7195	B	N	385544	6340945	385479	6341167	12	84H		Legend	D.S. & R.G.	12 m		700W	60								
7196	B	N	385435	6340954	385370	6341176	12	84H		Legend	D.S. & R.G.	12 m		800W	55								
7197	B	N	385343	6340947	385278	6341169	12	84H		Legend	D.S. & R.G.	12 m		900W	55								
7198	B	N	385240	6340954	385175	6341176	12	84H		Legend	D.S. & R.G.	12 m		1000W	55								
7199	B	N	386522	6341353	386457	6341575	12	84H		Legend	D.S. & R.G.	12 m		750N	50								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
7200	B	N	386477	6341255	386412	6341477	12	84H		Legend	D.S. & R.G.	12 m		650N	70								
7201	B	N	386427	6341170	386362	6341392	12	84H		Legend	D.S. & R.G.	12 m		550N	40								
7202	B	N	386383	6341085	386318	6341307	12	84H		Legend	D.S. & R.G.	12 m		450N	50								
7203	B	FD	386393	6341085	386328	6341307	12	84H		Legend	D.S. & R.G.	12 m		450N	45								
7204	B	SD	386393	6341085	386328	6341307	12	84H		Legend	D.S. & R.G.	12 m		450N	45								
7204		LD	386393	6341085	386328	6341307	12	84H		Legend	D.S. & R.G.	12 m											
7205		LD	386393	6341085	386328	6341307	12	84H		Legend	D.S. & R.G.	12 m											
7207	B	N	386345	6340989	386280	6341211	12	84H		Legend	D.S. & R.G.	12 m		350N	45								
7208	B	N	386302	6340890	386237	6341112	12	84H		Legend	D.S. & R.G.	12 m		250N	40								
7209	B	N	382285	6340869	382220	6341091	12	84H		Legend	D.S. & R.G.	12 m		200N	47								
7210	B	N	386259	6340823	386194	6341045	12	84H		Legend	D.S. & R.G.	12 m		150N	36								
7211	B	N	386259	6340773	386194	6340995	12	84H		Legend	D.S. & R.G.	12 m		100N	40								
7212	B	N	386232	6340734	386167	6340956	12	84H		Legend	D.S. & R.G.	12 m		50N	42								
7213	B	N	386167	6340650	386102	6340872	12	84H		Legend	D.S. & R.G.	12 m		50S	40								
7214	B	N	386183	6340602	386118	6340824	12	84H		Legend	D.S. & R.G.	12 m		100S	36								
7215	B	N	386120	6340565	386055	6340787	12	84H		Legend	D.S. & R.G.	12 m		150S	45								
7216	B	N	454561	6145227	454481	6145442	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			45								
7217	B	FD	454551	6145227	454471	6145442	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			55								
7218	B	SD	454551	6145227	454471	6145442	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			55								
7218		LD	454551	6145227	454471	6145442	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
7221	B	N	454525	6145311	454445	6145526	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			55								
7222	B	N	454454	6145385	454374	6145600	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			50								
7223	B	N	454427	6145485	454347	6145700	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7224	B	N	454420	6145583	454340	6145798	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7225	B	N	454307	6145629	454227	6145844	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7226	B	N	454306	6145749	454226	6145964	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburde (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
7227	B	N	454280	6145855	454200	6146070	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7228	B	N	454245	6145915	454165	6146130	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			35								
7229	B	N	454211	6145988	454131	6146203	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			45								
7230	B	N	454185	6146033	454105	6146248	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			30								
7231	B	FD	454185	6146033	454105	6146248	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7232	B	SD	454185	6146033	454105	6146248	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			40								
7232		LD	454185	6146033	454105	6146248	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
8001	C	N	581810	6293766	581729	6293977	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200S	100								
8002	C	N	581808	6293813	581728	6294024	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	150S	110								
8003	C	N	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S	120								
8004	C	LD	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S	120								
8004	C	SD	581808	6293882	581727	6294093	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100S	120								
8005	C	N	581806	6293925	581726	6294140	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50S	120								
8006	C	N	581800	6293975	581720	6294190	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	Baseline	120								
8007	C	N	581768	6294011	581688	6294226	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50N	110								
8008	C	FD	581773	6294013	581693	6294228	11	84B	7/6/00	TQ155	D.S. & B.M.	25-30 m	Sunny	50N	110								
8009	C	N	581766	6294067	581686	6294282	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	100N	110								
8010	C	N	581778	6294165	581698	6294380	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	200N	115								
8011	C	N	581742	6294260	581662	6294475	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Partly Cloudy	300N	115								
8013	C	N	581760	6294385	581680	6294600	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	400N	110								
8014	C	N	581760	6294468	581680	6294683	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	500N	100								
8015	C	N	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	600N	110								
8016	C	SD	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m	Rain	600N	110								
8016		LD	581756	6294571	581676	6294786	11	84B	7/7/00	TQ155	D.S. & B.M.	25-30 m											
8017	C	N	581760	6293985	581680	6294200	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	0	125								
8018	C	N	581890	6293967	581810	6294182	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	100E	95								
8019	C	N	581976	6293961	581896	6294176	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200E	115								
8020	C	FD	581976	6293961	581896	6294176	11	84B	07/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200E	90-125								
8021	C	N	582564	6306177	582484	6306393	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	0	115								

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
8022	C	N	582561	6306211	582501	6306427	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	50N	95								
8023	C	N	582589	6306265	582509	6306481	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	100N	95								
8025	C	N	582587	6306318	582507	6306534	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	150N	105								
8026	C	N	582580	6306369	582500	6306585	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	200N	120								
8027	C	N	582576	6306469	582496	6306685	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	300N	160								
8028	C	SD	582576	6306469	582496	6306685	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	300N	160								
8028		LD	582576	6306469	582496	6306685	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m											
8029	C	N	582558	6306563	582478	6306779	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	400N	120								
8030	C	N	582556	6306669	582476	6306885	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	500N	110								
8031	C	N	582551	6306773	582471	6306989	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	600N	110								
8032	C	FD	582532	6306776	582452	6306992	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	600N	110								
8033	C	N	582566	6306848	582486	6307064	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	700N	105								
8034	C	N	582589	6306107	582509	6306323	11	84B	07/12/00	K5	D.S. & B.M.	25-30 m	Sunny	50S	140								
8035	C	N	582600	6306061	582520	6306277	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	100S	95								
8037	C	N	582605	6306001	582525	6306217	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	150S	170								
8038	C	N	582605	6305950	582525	6306166	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	200S	105								
8039	C	N	582597	6305858	582517	6306074	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	300S	100								
8040	C	SD	582597	6305858	582517	6306074	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	300S	100								
8040		LD	582597	6305858	582517	6306074	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m											
8041	C	N	582636	6305752	582556	6305968	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Partly Cloudy	400S	110								
8042	C	N	582607	6305653	582527	6305869	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Rain	500S	90								
8043	C	N	582627	6305556	582547	6305772	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Rain	600S	160								
8044	C	FD	582629	6305558	582549	6305774	11	84B	07/13/00	K5	D.S. & B.M.	25-30 m	Rain	600S	140								
8045	C	N	619475	6320080	619396	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	105								
8046	C	N	619525	6320080	619446	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	110								
8047	C	N	619590	6320080	619511	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	105								
8049	C	N	619615	6320080	619536	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	120						0		
8050	C	N	619675	6320080	619596	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	150								
8051	C	N	619725	6320080	619646	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	115								
8052	C	SD	619725	6320080	619646	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	BL	115								
8052		LD	619725	6320080	619646	6320296	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m											
8053	C	N	619725	6320130	619646	6320346	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	619725	130								
8054	C	N	619725	6320180	619646	6320396	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Sunny	619725	90								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
8055	C	N	619725	6320230	619646	6320446	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	90								
8056	C	FD	619725	6320230	619646	6320446	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	110								
8057	C	N	619725	6320280	619646	6320496	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	110								
8058	C	N	619725	6320330	619646	6320546	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	619725	100								
8059	C	N	619450	6320083	619371	6320299	11	84G	7/14/00	K11	D.S. & B.M.	25-30 m	Partly Cloudy	BL	120								
8061	C	N	619380	6320071	619301	6320287	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		85								
8062	C	N	619260	6320050	619181	6320266	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		90								
8063	C	N	619162	6320072	619083	6320288	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		90								
8064	C	SD	619162	6320072	619083	6320288	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Rain		90								
8064		LD	619162	6320072	619083	6320288	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m											
8065	C	N	619067	6320010	618988	6320226	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		110								
8066	C	N	618972	6320004	618893	6320220	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		120								
8067	C	N	618861	6320022	618782	6320238	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		120								
8068	C	FD	618861	6320022	618782	6320238	11	84G	7/18/00	K11	D.S. & B.M.	25-30 m	Sunny		120								
8069	C	N	456190	6144582	456110	6144797	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-110								
8070	C	N	456088	6144575	456008	6144790	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			90-100								
8071	C	N	455987	6144594	455907	6144809	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			90-100								
8072	C	N	455878	6144579	455798	6144794	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			50-70								
8073	C	N	455783	6144581	455703	6144796	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			60-80								
8074	C	N	455680	6144556	455600	6144771	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			70-80								
8075	C	N	455585	6144577	455505	6144792	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			110								
8076	C	N	455478	6144584	455398	6144799	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
8077	C	N	455405	6144572	455325	6144787	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
8078	C	FD	455405	6144572	455325	6144787	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
8079	C	SD	455405	6144572	455325	6144787	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
8082	C	N	454941	6145394	454861	6145609	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			90-100								
8083	C	N	454987	6145387	454907	6145602	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			85-105								
8084	C	N	455037	6145379	454957	6145594	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			110-120								
8085	C	N	455081	6145390	455001	6145605	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-115								
8086	C	N	455134	6145393	455054	6145608	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-120								
8087	C	N	455175	6145369	455095	6145584	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-125								
8088	C	N	454888	6145396	454808	6145611	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-120								
8089	C	N	454846	6145385	454766	6145600	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			85-125								
8090	C	N	454783	6145403	454703	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-115								
8091	C	N	454732	6145391	454652	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			90-110								
8092	C	FD	454732	6145391	454652	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-115								
8093	C	SD	454732	6145391	454652	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-115								
8094		LD	454732	6145391	454652	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
8096	C	N	454693	6145342	454613	6145557	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-120								
8097	C	N	454629	6145393	454549	6145608	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			80-105								
8098	C	N	454574	6145387	454494	6145602	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-130								
8099	C	N	454608	6145601	454528	6145816	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			90-110								
8100	C	N	454564	6145617	454484	6145832	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-120								
8101	C	N	454505	6145606	454425	6145821	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			95-115								
8102	C	N	454505	6145606	454425	6145821	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			90-110								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
8103	C	N	454660	6145593	454580	6145808	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			95-115								
8104	C	N	454704	6145583	454624	6145798	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			80-110								
8105	C	N	454765	6145571	454685	6145786	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-125								
8106	C	FD	454765	6145571	454685	6145786	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-125								
8107	C	SD	454765	6145571	454685	6145786	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-125								
8108		LD	454765	6145571	454685	6145786	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
8110	C	N	454829	6145585	454749	6145800	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			95-115								
8111	C	N	454878	6145615	454798	6145830	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			85-105								
8112	C	N	454911	6145589	454831	6145804	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-115								
8113	C	N	454962	6145588	454882	6145803	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			105-125								
8114	C	N	455003	6145533	454923	6145748	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-115								
8115	C	N	455027	6145525	454947	6145740	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-115								
8116	C	N	455080	6145468	455000	6145683	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			80-95								
8117	C	N	453850	6145418	453770	6145633	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			105-120								
8118	C	N	453943	6145391	453863	6145606	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			90-110								
8119	C	N	454036	6145403	453956	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-110								
8120	C	FD	454036	6145403	453956	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-130								
8121	C	SD	454036	6145403	453956	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
8122		LD	454036	6145403	453956	6145618	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
8124	C	N	454137	6145396	454057	6145611	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			105-120								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
8125	C	N	454438	6145402	454358	6145617	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			95-110								
8126	C	N	454342	6145400	454262	6145615	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-110								
8127	C	N	454246	6145402	454166	6145617	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			120-130								
8128	C	N	455177	6144665	455097	6144880	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			140-160								
8129	C	N	455069	6144606	454989	6144821	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			140-160								
8130	C	N	454983	6144602	454903	6144817	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			150-170								
8131	C	N	454898	6144696	454818	6144911	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			100-120								
8132	C	N	455813	6144689	455733	6144904	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			150-190								
8133	C	N	454720	6144734	454640	6144949	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			150-180								
8134	C	FD	454720	6144734	454640	6144949	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			130-170								
8135	C	SD	454720	6144734	454640	6144949	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			130-170								
8136		LD	454720	6144734	454640	6144949	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
8138	C	N	454644	6144794	454564	6145009	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			110-130								
8139	C	N	454551	6144881	454471	6145096	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			150-190								
8140	C	N	454562	6144976	454482	6145191	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			150-170								
8141	C	N	454581	6145095	454501	6145310	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			110-120								
8142	C	N	387150	6340543	387085	6340765	12	84H		Legend	D.S. & R.G.	12 m	Sunny	1000E	95								
8143	C	N	387102	6340513	387037	6340735	12	84H		Legend	D.S. & R.G.	12 m	Sunny	950E	100								
8144	C	N	387044	6340517	386979	6340739	12	84H		Legend	D.S. & R.G.	12 m	Sunny	900E	130								
8145	C	N	386958	6340534	386893	6340756	12	84H		Legend	D.S. & R.G.	12 m	Sunny	800E	100								
8146	C	N	386903	6340525	386838	6340747	12	84H		Legend	D.S. & R.G.	12 m	Sunny	750E	100								
8147	C	N	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m	Sunny	700E	110								
8148	C	FD	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m	Sunny	700E	100								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
8149	C	SD	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m		700E	100								
8149		LD	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m											
8150		LD	386836	6340529	386771	6340751	12	84H		Legend	D.S. & R.G.	12 m											
8152	C	N	386655	6340532	386590	6340754	12	84H		Legend	D.S. & R.G.	12 m		500E	100								
8153	C	N	386607	6340533	386542	6340755	12	84H		Legend	D.S. & R.G.	12 m		450E	110								
8154	C	N	386573	6340545	386508	6340767	12	84H		Legend	D.S. & R.G.	12 m		400E	100								
8155	C	N	386503	6340540	386438	6340762	12	84H		Legend	D.S. & R.G.	12 m		350E	130								
8156	C	N	386451	6340566	386386	6340788	12	84H		Legend	D.S. & R.G.	12 m		300E	115								
8157	C	N	386394	6340600	386329	6340822	12	84H		Legend	D.S. & R.G.	12 m		250E	100								
8158	C	N	386369	6340603	386304	6340825	12	84H		Legend	D.S. & R.G.	12 m		200E	105								
8159	C	N	386327	6340628	386262	6340850	12	84H		Legend	D.S. & R.G.	12 m		150E	100								
8160	C	N	386272	6340649	386207	6340871	12	84H		Legend	D.S. & R.G.	12 m		100E	100								
8161	C	N	386237	6340674	386172	6340896	12	84H		Legend	D.S. & R.G.	12 m		50E	110								
8162	C	FD	386227	6340674	386162	6340896	12	84H		Legend	D.S. & R.G.	12 m		40E	160								
8163	C	SD	386227	6340674	386162	6340896	12	84H		Legend	D.S. & R.G.	12 m		40E	160								
8163		LD	386227	6340674	386162	6340896	12	84H		Legend	D.S. & R.G.	12 m											
8164		LD	386227	6340674	386162	6340896	12	84H		Legend	D.S. & R.G.	12 m											
8166	C	N	386190	6340712	386125	6340934	12	84H		Legend	D.S. & R.G.	12 m		0	100								
8167	C	N	386152	6340735	386087	6340957	12	84H		Legend	D.S. & R.G.	12 m		50W	100								
8168	C	N	386106	6340755	386041	6340977	12	84H		Legend	D.S. & R.G.	12 m		100W	100								
8169	C	N	386062	6340771	385997	6340993	12	84H		Legend	D.S. & R.G.	12 m		150W	150								
8170	C	N	386028	6340803	385963	6341025	12	84H		Legend	D.S. & R.G.	12 m		200W	150								
8171	C	N	385979	6340825	385914	6341047	12	84H		Legend	D.S. & R.G.	12 m		250W	80								
8172	C	N	385924	6340845	385859	6341067	12	84H		Legend	D.S. & R.G.	12 m		300W	100								
8173	C	N	385877	6340867	385812	6341089	12	84H		Legend	D.S. & R.G.	12 m		350W	100								
8174	C	N	385830	6340886	385765	6341108	12	84H		Legend	D.S. & R.G.	12 m		400W	105								
8175	C	N	385783	6340905	385718	6341127	12	84H		Legend	D.S. & R.G.	12 m		450W	105								
8176	C	FD	385783	6340895	385718	6341117	12	84H		Legend	D.S. & R.G.	12 m		450W	105								
8177	C	SD	385783	6340895	385718	6341117	12	84H		Legend	D.S. & R.G.	12 m		450W	105								
8177		LD	385783	6340895	385718	6341117	12	84H		Legend	D.S. & R.G.	12 m											
8178		LD	385783	6340895	385718	6341117	12	84H		Legend	D.S. & R.G.	12 m											
8180	C	N	385735	6340952	385670	6341174	12	84H		Legend	D.S. & R.G.	12 m		500W	115								
8181	C	N	581175	6293955	581095	6294170	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	600W	100								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
8182	C	N	581256	6294007	581176	6294222	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	500W	100								
8183	C	N	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400W	100								
8184	C	SD	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400W	110								
8184		LD	581374	6293945	581294	6294160	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m											
8185	C	N	581484	6293972	581404	6294187	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	300W	90								
8186	C	N	581567	6293959	581487	6294174	11	84B	7/4/00	TQ155	D.S. & B.M.	25-30 m	Sunny	200W	110								
8187	C	N	582066	6293967	581986	6294182	11	84B	7/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	300E	160								
8188	C	N	582162	6293979	582082	6294194	11	84B	7/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	400E	110								
8189	C	N	582266	6293975	582186	6294190	11	84B	7/19/00	TQ155	D.S. & B.M.	25-30 m	Sunny	500E	130								
8194	C	N	385640	6340975	385575	6341197	12	84H		Legend	D.S. & R.G.	12 m		600W	160								
8195	C	N	385544	6340945	385479	6341167	12	84H		Legend	D.S. & R.G.	12 m		700W	140								
8196	C	N	385435	6340954	385370	6341176	12	84H		Legend	D.S. & R.G.	12 m		800W	200								
8197	C	N	385343	6340947	385278	6341169	12	84H		Legend	D.S. & R.G.	12 m		900W	100								
8198	C	N	385240	6340954	385175	6341176	12	84H		Legend	D.S. & R.G.	12 m		1000W	100								
8199	C	N	386522	6341353	386457	6341575	12	84H		Legend	D.S. & R.G.	12 m		750N	200								
8200	C	N	386477	6341255	386412	6341477	12	84H		Legend	D.S. & R.G.	12 m		650N	220								
8201	C	N	386427	6341170	386362	6341392	12	84H		Legend	D.S. & R.G.	12 m		550N	100								
8202	C	N	386383	6341085	386318	6341307	12	84H		Legend	D.S. & R.G.	12 m		450N	200								
8203	C	FD	386393	6341085	386328	6341307	12	84H		Legend	D.S. & R.G.	12 m		450N	100								
8204	C	SD	386393	6341085	386328	6341307	12	84H		Legend	D.S. & R.G.	12 m		450N	100								
8204		LD	386393	6341085	386328	6341307	12	84H		Legend	D.S. & R.G.	12 m											
8205		LD	386393	6341085	386328	6341307	12	84H		Legend	D.S. & R.G.	12 m											
8207	C	N	386345	6340989	386280	6341211	12	84H		Legend	D.S. & R.G.	12 m		350N	140								
8208	C	N	386302	6340890	386237	6341112	12	84H		Legend	D.S. & R.G.	12 m		250N	90								
8209	C	N	382285	6340869	382220	6341091	12	84H		Legend	D.S. & R.G.	12 m		200N	100								
8210	C	N	386259	6340823	386194	6341045	12	84H		Legend	D.S. & R.G.	12 m		150N	100								
8211	C	N	386259	6340773	386194	6340995	12	84H		Legend	D.S. & R.G.	12 m		100N	160								
8212	C	N	386232	6340734	386167	6340956	12	84H		Legend	D.S. & R.G.	12 m		50N	215								
8213	C	N	386167	6340650	386102	6340872	12	84H		Legend	D.S. & R.G.	12 m		50S	120								
8214	C	N	386183	6340602	386118	6340824	12	84H		Legend	D.S. & R.G.	12 m		100S	160								
8215	C	N	386120	6340565	386055	6340787	12	84H		Legend	D.S. & R.G.	12 m		150S	120								
8216	C	N	454561	6145227	454481	6145442	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			125								

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	UTM East NAD27	UTM North NAD 27	UTM East NAD 83	UTM North NAD 83	Zone	NTS Sheet	Date	Survey Area	Sampler	Overburden (Glacial Till)	Weather	Line Number	Depth	Field pH	Tree Circumference (cm)	Depth To Base Of LFH (cm)	Depth To Base Of Ah (cm)	Depth To Base Of Ae (cm)	Depth To Base Of B (cm)	Peat Depth To Base Of LFH (cm)	Peat Depth To Base Of Om (cm)
8217	C	FD	454551	6145227	454471	6145442	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			130								
8218	C	SD	454551	6145227	454471	6145442	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			130								
8219		LD	454551	6145227	454471	6145442	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											
8221	C	N	454525	6145311	454445	6145526	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			350								
8222	C	N	454454	6145385	454374	6145600	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			400								
8223	C	N	454427	6145485	454347	6145700	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			400								
8224	C	N	454420	6145583	454340	6145798	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			400								
8225	C	N	454307	6145629	454227	6145844	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			450								
8226	C	N	454306	6145749	454226	6145964	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			500								
8227	C	N	454280	6145855	454200	6146070	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			500								
8228	C	N	454245	6145915	454165	6146130	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			500								
8229	C	N	454211	6145988	454131	6146203	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			300								
8230	C	N	454185	6146033	454105	6146248	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			500								
8231	C	FD	454185	6146033	454105	6146248	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			500								
8232	C	SD	454185	6146033	454105	6146248	11	83N		Mountain Lake	D.S. & B.M.	0-5 m			500								
8232		LD	454185	6146033	454105	6146248	11	83N		Mountain Lake	D.S. & B.M.	0-5 m											

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
1001	AsB	N								80	20	0	0	0	0			5W	Start at 65 m east of original 200S
1002	AsB	N																	
1003	AsB	N								10	0	0	0	0	0			10W	30 m to east edge of bog
1004	AsB	SD								10	0	0	0	0	0			10W	30 m to east edge of bog
1005	AsB	N								60	40	0	0	0	0			5W	Aspen and Polar are larger
1006	AsB	N								50	40	10	0	0	0			5W	Large Aspen and Poplar
1007	AsB	N								50	45	5	0	0	0			2W	Collected 10 m west of line
1008	AsB	FD								50	45	5	0	0	0			2W	Collected 10 m east of line
1009	AsB	N								70	30	0	0	0	0			5W	
1010	AsB	N								90	10	0	0	0	0			3W	
1011	AsB	N								70	30	0	0	0	0			5W	
1013	AsB	N																	
1014	AsB	N																	
1015	AsB	N																	
1016	AsB	SD																	
1017	AsB	N								80	10	10	0	0	0			10W	
1018	AsB	N								85	10	5	0	0	0			5W	
1019	AsB	N								95	5	0	0	0	0			5S	Collected 8 m north of line
1020	AsB	FD								70	10	0	0	20	0			15N	Collected 8 m south of line
1181	AsB	N								90	5	0	5	0	0			5W	
1182	AsB	N								95	5	0	0	0	0			5W	
1183	AsB	N																5W	
1184	AsB	SD																5W	
1185	AsB	N								60	35	5	0	0	0			5W	
1186	AsB	N								90	10	0	0	0	0			20NE	West swamp edge at 0+160W
1187	AsB	N								80	20	0	0	0	0			5W	
1188	AsB	N								90	10	0	0	0	0			5NW	
1189	AsB	N								95	5	0	0	0	0			5NW	
2001	WiT	N								80	20	0	0	0	0			5W	
2002	WiT	N																	
2003	WiT	N								10	0	0	0	0	0			10W	
2004	WiT	SD								10	0	0	0	0	0			10W	
2005	WiT	N								60	40	0	0	0	0				
2006	WiT	N								50	40	10	0	0	0				
2007	WiT	N								50	45	5	0	0	0				

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
2008	WiT	FD								50	45	5	0	0	0				
2009	WiT	N								70	30	0	0	0	0			5W	
2010	WiT	N								90	10	0	0	0	0			3W	
2011	WiT	N								70	30	0	0	0	0			5W	
2013	WiT	N																	
2014	WiT	N																	
2015	WiT	N																	
2016	WiT	SD																	
2017	WiT	N								80	10	10	0	0	0			10W	
2018	WiT	N								85	10	5	0	0	0			5W	
2019	WiT	N								95	5	0	0	0	0			5S	
2020	WiT	FD								70	10	0	0	20	0			15N	On small hummock
2181	WiT	N								90	5	0	5	0	0			5W	
2182	WiT	N								95	5	0	0	0	0			5W	
2183	WiT	N																5W	
2184	WiT	SD																5W	
2185	WiT	N								60	35	5	0	0	0			5W	
2186	WiT	N								90	10	0	0	0	0			20NE	30 cm of glaciofluvial over till
2187	WiT	N								80	20	0	0	0	0			5W	
2188	WiT	N								90	10	0	0	0	0			5NW	
2189	WiT	N								95	5	0	0	0	0			5NW	
3045	SpN	N								20	30	50	0	0	0			0	
3046	SpN	N								40	10	30	0	20	0			0	
3047	SpN	N								10	0	80	0	10	0			0	Swamp 15 m east and west of 619575E. Water table at 45 cm
3049	SpN	N								50	10	40	0	0	0			0	Swamp from 619620E to 619630E. Water table at 40 cm
3050	SpN	N								10	0	90	0	0	0			0	Water table at 20 cm
3051	SpN	N								0	10	90	0	0	0			0	Dwarf spruce and muskeg. Drill road 10 m west and 5 m east of sample. Water table at 50 cm.
3052	SpN	SD								0	10	90	0	0	0			0	Dwarf spruce and muskeg. Drill road 10 m west and 5 m east of sample. Water table at 50 cm
3053	SpN	N								0	0	100	0	0	0			0	
3054	SpN	N								25	5	60	0	10	0			0	
3055	SpN	N								50	10	40	0	0	0			5N	
3056	SpN	FD								50	10	40	0	0	0			5N	
3057	SpN	N								60	0	40	0	0	0			5N	
3058	SpN	N								30	0	70	0	0	0			5N	
3059	SpN	N								70	10	20	0	0	0			5E	

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
3061	SpN	N								30	0	70	0	0	0			8N	
3062	SpN	N								5	0	95	0	0	0			3N	
3063	SpN	N								30	0	70	0	0	0			3N	
3064	SpN	SD								30	0	70	0	0	0			3N	
3065	SpN	N								75	5	20	0	0	0			0	
3066	SpN	N								80	0	20	0	0	0			2W	
3067	SpN	N								70	20	10	0	0	0			5W	
3068	SpN	FD								70	20	10	0	0	0			5W	Collected 10 m north of 6067
4001	Om	N										0	0	0	0	100	0		
4002	Om	N										0	0	0	0	100	0		
4003	Om	N										20	0	0	0	80	0		
4004	Om	N										20	0	0	0	80	0		
4005	Om	N										20	0	0	0	80	0		
4006	Om	N																	
4007	Om	N																	Dry peat over medium sand
4008	Om	N																	Collected 15 m west of 4007/5007
4009	Om	N																	
4010	Om	N																	Clay from 240 to 300 and then coarse sand
4011	Om	N																	
4011	Om	LD																	
4013	Om	N																	
4014	Om	N	5	50	25	0	20	0											
4015	Om	N	40	40	0	0	20	0											
4016	Om	N	40	40	0	0	20	0											
4017	Om	N	40	40	0	0	20	0											
4018	Om	N																	
4019	Om	N																	
4020	Om	N																	
4021	Om	N																	
4022	Om	N																	
4023	Om	N																	
4023	Om	LD																	
4025	Om	N																	
4026	Om	N																	
5001	SPS	N	0	65	20	5	10	0				0	0	0	0	100	0		

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
5002	SPS	N										0	0	0	0	100	0		
5003	SPS	N										20	0	0	0	80	0		
5004	SPS	N										20	0	0	0	80	0		
5005	SPS	N	5	75	10	5	5					20	0	0	0	80	0		
5006	SPS	N																	
5007	SPS	N	5	70	10	5	10												
5008	SPS	N																	
5009	SPS	N																	
5010	SPS	N																	
5010	SPS	LD																	
5011	SPS	N																	
5011	SPS	LD																	
5013	SPS	N																	
5014	SPS	N																	
5015	SPS	N																	
5016	SPS	N																	
5016	SPS	SD																	
5017	SPS	N																	
5018	SPS	N																	
5019	SPS	N																	
5020	SPS	N																	
5021	SPS	N																	
5022	SPS	N																	
5023	SPS	N																	
5023	SPS	LD																	
5025	SPS	N																	
5026	SPS	N																	
6001	Ah	N								80	20	0	0	0	0			5W	
6002	Ah	N																	
6003	Ah	N								10	0	0	0	0	0			10W	
6004	Ah	SD								10	0	0	0	0	0			10W	
6005	Ah	N								60	40	0	0	0	0				
6006	Ah	N								50	40	10	0	0	0				
6007	Ah	N								50	45	5	0	0	0				
6008	Ah	FD								50	45	5	0	0	0				

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
6009	Ah	N								70	30	0	0	0	0			5W	
6010	Ah	N								90	10	0	0	0	0			3W	
6011	Ah	N								70	30	0	0	0	0			5W	
6013	Ah	N																	
6014	Ah	N																	
6015	Ah	N																	
6016	Ah	SD																	
6017	Ah	N								80	10	10	0	0	0			10W	
6018	Ah	N								85	10	5	0	0	0			5W	Tan quartzite clasts
6019	Ah	N								95	5	0	0	0	0			5S	
6020	Ah	FD								70	10	0	0	20	0			15N	
6021	Ah	N								90	10	0	0	0	0			10NE	
6022	Ah	N								95	5	5	0	0	0			10SE	
6023	Ah	N								90	5	5	0	0	0			20NE	
6025	Ah	N								50	40	0	0	0	10			20NE	
6026	Ah	N								60	30	0	0	0	10			20NE	
6027	Ah	N								85	10	0	0	0	5			30NE	
6028	Ah	SD								85	10	0	0	0	5			5NE	
6029	Ah	N								90	10	0	0	0	0			5NE	Base of slope on to flat swampy area
6030	Ah	N								60	40	0	0	0	0			5NE	Low-lying swampy area
6031	Ah	N								95	3	0	0	0	2			0	
6032	Ah	FD																0	
6033	Ah	N								80	10	5	0	0	5			0	
6034	Ah	N								100	0	0	0	0	0			30SE	Base of slope at 70S
6035	Ah	N								100	0	0	0	0	0			15SE	East-west creek
6036		LD																	
6037	Ah	N								80	20	0	0	0	0			25Se	
6038	Ah	N								50	50	0	0	0	0			10SE	
6039	Ah	N								30	70	0	0	0	0			15SE	
6040	Ah	SD								30	70	0	0	0	0			15SE	
6041	Ah	N								30	70	0	0	0	0			0	
6042	Ah	N								30	25	25	0	0	20			5SE	
6043	Ah	N								25	70	0	0	0	5			5SE	
6044	Ah	FD								25	70	0	0	0	5			5SE	FD is 10 m west of 6043
6045	Ah	N								20	30	50	0	0	0			0	

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
6046	Ah	N								40	10	30	0	20	0			0	
6047	Ah	N								10	0	80	0	10	0			0	
6049	Ah	N								50	10	40	0	0	0			0	
6050	Ah	N								10	0	90	0	0	0			0	
6051	Ah	N								0	10	90	0	0	0			0	
6052	Ah	SD								0	10	90	0	0	0			0	
6053	Ah	N								0	0	100	0	0	0			0	
6054	Ah	N								25	5	60	0	10	0			0	
6055	Ah	N								50	10	40	0	0	0			5N	
6056	Ah	FD								50	10	40	0	0	0			5N	Field duplicate collected 10 m west of 6055
6057	Ah	N								60	0	40	0	0	0			5N	
6058	Ah	N								30	0	70	0	0	0			5N	
6059	Ah	N								70	10	20	0	0	0			5E	
6060		LD																	
6061	Ah	N								30	0	70	0	0	0			8N	
6062	Ah	N								5	0	95	0	0	0			3N	
6063	Ah	N								30	0	70	0	0	0			3N	
6064	Ah	SD								30	0	70	0	0	0			3N	
6065	Ah	N								75	5	20	0	0	0			0	
6066	Ah	N								80	0	20	0	0	0			2W	
6067	Ah	N								70	20	10	0	0	0			5W	
6068	Ah	FD								70	20	10	0	0	0			5W	
6069	Ah	N								15	0	30	50	5	0			20N	
6070	Ah	N								15	5	20	20	40	0			15N	
6071	Ah	N								40	0	20	0	40	0			20N	
6072	Ah	N								50	0	30	0	20	0			25N	
6073	Ah	N								60	0	5	0	35	0			15N	
6074	Ah	N								85	0	0	0	15	0			10N	
6075	Ah	N								85	0	0	0	15	0			5N	
6076	Ah	N								80	0	5	0	10	0			25NE	
6077	Ah	N								95	0	0	0	5	0			25NE	
6078	Ah	FD								95	0	0	0	5	0			25NE	
6079	Ah	SD								95	0	0	0	5	0			25NE	
6082	Ah	N								95	0	5	0	0	0			5N	Sample 20 m south of BL
6083	Ah	N								95	5	0	0	0	0			15NE	

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
6084	Ah	N								95	5	0	0	0	0			15NE	
6085	Ah	N								95	5	0	0	0	0			10NE	Near base of the slope
6086	Ah	N								95	5	0	0	0	0			10E	At base of slope
6087	Ah	N								95	0	0	0	5	0			2E	
6088	Ah	N								60	10	30	0	0	0			15W	
6089	Ah	N								60	0	40	0	0	0			5W	
6090	Ah	N								85	0	15	0	0	0			10W	
6091	Ah	N								100	0	0	0	0	0			40W	
6092	Ah	FD								100	0	0	0	0	0			40W	Collected 10 m north of 6091
6093	Ah	SD								100	0	0	0	0	0			40W	
6096	Ah	N								100	0	0	0	0	0			15W	
6097	Ah	N								100	0	0	0	0	0			5W	Collected 10 m south of the line
6098	Ah	N								85	10	5	0	0	0			3W	Creek is 30 m to west
6099	Ah	N								85	10	5	0	0	0			5W	
6100	Ah	N								85	5	0	0	10	0			5W	H=3
6101	Ah	N								35	5	30	0	30	0			2W	H=3
6102	Ah	N								50	10	30	0	10	0			2W	H=3
6103	Ah	N								85	5	5	0	5	0			25W	H=4
6104	Ah	N								90	0	10	0	0	0			15NW	H=3
6105	Ah	N								90	5	5	0	0	0			20N	H=3
6106	Ah	FD								90	5	5	0	0	0			20N	Collected 10 m south of 6105
6107	Ah	SD								90	5	5	0	0	0			20N	Collected 10 m south of 6105
6110	Ah	N								100	0	0	0	0	0			10NE	
6111	Ah	N								95	0	5	0	0	0			5NE	
6112	Ah	N								60	0	40	0	0	0			30NW	
6113	Ah	N								60	0	20	0	20	0			30N	
6114	Ah	N								40	0	0	0	60	0			10N	
6115	Ah	N								60	0	0	0	40	0			5N	
6116	Ah	N								50	0	0	0	50	0			5NE	
6117	Ah	N								40	0	50	0	10	0			0	
6118	Ah	N								50	0	50	0	0	0			0	
6119	Ah	N								10	0	60	10	20	0			0	Collected 20 m south of line
6120	Ah	FD								10	0	60	10	20	0			0	Collected 8 m south of 6119
6121	Ah	SD								10	0	60	10	20	0			0	
6124	Ah	N								30	0	65	0	5	0			0	

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
6125	Ah	N								60	5	35	0	0	0			0	
6126	Ah	N								30	0	70	0	0	0			5E	
6127	Ah	N								45	0	45	0	10	0			3E	
6128	Ah	N								70	0	10	0	20	0			5N	
6129	Ah	N								40	0	20	20	20	0			5N	
6130	Ah	N								60	0	10	10	20	0			5N	
6131	Ah	N								0	0	70	30	0	0			2N	
6132	Ah	N								50	0	0	20	30	0			5N	
6133	Ah	N								90	0	10	0	0	0			5N	
6134	Ah	FD								90	5	5	0	0	0			5N	
6135	Ah	SD								90	5	5	0	0	0			5N	
6138	Ah	N								10	0	10	80	0	0			5N	
6139	Ah	N								10	0	0	90	0	0			5N	
6140	Ah	N								100	0	0	0	0	0			5E	
6141	Ah	N								95	5	0	0	0	0			5E	
6142	Ah	N								80	0	5	0	15	0			0	3142=spruce
6143	Ah	N								75	0	20	0	5	0			25W	H=5; 3143=spruce
6144	Ah	N								70	0	0	0	30	0			5W	3144=spruce; sphagnum moss
6145	Ah	N								50	40	0	0	10	0			10SE	3145=spruce; 850E is a stream
6146	Ah	N								95	0	5	0	0	0			10SE	3146=spruce
6147	Ah	N								55	0	40	0	5	0			5SE	3147=spruce
6148	Ah	FD								55	0	40	0	5	0			5SE	3148=spruce; sample collected 10 m east of 6147
6149	Ah	SD								55	0	40	0	5	0			5SE	3149=spruce; No samples from 650E to 550E because of GF sand
6150		LD																	
6152	Ah	N								50	0	50	0	0	0			3S	3152=spruce
6153	Ah	N								0	0	100	0	0	0			3W	3153=spruce
6154	Ah	N								0	0	100	0	0	0			0	3154=spruce
6155	Ah	N								0	0	100	0	0	0			0	H=9; 3155=spruce
6156	Ah	N								5	0	95	0	0	0			10SE	3156=spruce
6157	Ah	N								5	0	95	0	0	0			3SE	3157=spruce
6158	Ah	N								5	0	95	0	0	0			0	3158=spruce
6159	Ah	N								5	0	95	0	0	0			0	3159=spruce
6160	Ah	N								0	0	100	0	0	0			0	3160=spruce
6161	Ah	N								5	0	95	0	0	0			0	3161=spruce
6162	Ah	FD								5	0	95	0	0	0			0	3162=spruce

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
6163	Ah	SD								5	0	95	0	0	0			0	3163=spruce
6166	Ah	N								5	0	95	0	0	0			0	3166=spruce
6167	Ah	N								70	0	15	0	15	0			5SE	3167=spruce
6168	Ah	N								70	0	10	0	20	0			0	3168=spruce
6169	Ah	N								20	0	75	0	5	0			5W	3169=spruce
6170	Ah	N								75	0	0	0	25	0			5SE	3170=spruce collected at 385996E, 6340778N
6171	Ah	N								90	0	10	0	0	0			15SE	3171=spruce
6172	Ah	N								85	0	10	0	5	0			0	3172=spruce
6173	Ah	N								50	0	0	0	50	0			3SE	3173=spruce
6174	Ah	N								30	30	10	0	30	0			0	3174=spruce
6175	Ah	N								40	30	10	0	20	0			0	3175=spruce
6176	Ah	FD								40	30	10	0	20	0			0	3176=spruce
6177	Ah	SD								40	30	10	0	20	0			0	3177=spruce
6178		LD																	
6180	Ah	N								60	0	30	0	10	0			5SE	3180=spruce
6181	Ah	N					70			90	5	0	5	0	0			5W	
6182	Ah	N					50			95	5	0	0	0	0			5W	
6183	Ah	N					95											5W	
6184	Ah	SD					95											5W	
6185	Ah	N								60	35	5	0	0	0			5W	
6186	Ah	N					50			90	10	0	0	0	0			20NE	
6187	Ah	N								80	20	0	0	0	0			5W	
6188	Ah	N								90	10	0	0	0	0			5NW	Ae (to 18 cm) is actual l.grey leached zone - structure horiz. until peds reached
6189	Ah	N								95	5	0	0	0	0			5NW	H=2
6194	Ah	N								0	0	100	0	0	0			0	3194=spruce
6195	Ah	N								70	10	0	20	0	0			3E	3173=spruce
6196	Ah	N								0	0	100	0	0	0			0	3196=spruce
6197	Ah	N								0	0	100	0	0	0			0	3197=spruce
6198	Ah	N								0	0	100	0	0	0			0	3198=spruce
6199	Ah	N								45	0	55	5	0	0			15W	at east edge of hill
6200	Ah	N								20	0	80	0	0	0			5N	at north edge of hill, more poplar on the hill
6201	Ah	N								50	0	50	0	0	0			10S	at south edge of GF hill
6202	Ah	N								50	0	50	0	0	0			0	
6203	Ah	FD								5	0	95	0	0	0			3S	
6204	Ah	SD								50	0	50	0	0	0			0	

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
6207	Ah	N								5	0	95	0	0	0			3S	20 m south to swamp
6208	Ah	N								0	0	100	0	0	0			5N	
6209	Ah	N								0	0	100	0	0	0			0	
6210	Ah	N								50	0	50	0	0	0			10S	
6211	Ah	N								50	0	50	0	0	0			0	
6212	Ah	N								90	0	10	0	0	0			0	
6213	Ah	N								0	0	100	0	0	0			3S	
6214	Ah	N								0	0	100	0	0	0			3S	
6215	Ah	N								0	0	100	0	0	0			5N	north edge of airstrip clearing at 170S
6216	Ah	N								30	0	60	10	0	0			10E	
6217	Ah	FD								50	0	10	40	0	0			5E	
6218	Ah	SD								50	0	10	40	0	0			5E	
6221	Ah	N								10	0	30	30	30	0			5E	
6222	Ah	N								30	0	70	0	0	0			5E	
6223	Ah	N								20	0	80	0	0	0			40E	collected 25 m west of till sample
6224	Ah	N								0	0	20	0	80	0			40E	
6225	Ah	N								80	0	10	10	0	0			50S	
6226	Ah	N								70	0	20	0	10	0			60E	
6227	Ah	N								60	0	20	10	10	0			50E	
6228	Ah	N								75	0	10	5	10	0			30N	
6229	Ah	N								90	0	10	0	0	0			40E	
6230	Ah	N								50	0	20	20	10	0			60E	
6231	Ah	FD								50	0	20	20	10	0			60E	
6232	Ah	SD								50	0	20	20	10	0			60E	
7001	B	N	0	15	60	20	5	0	10YR 5.5/3	80	20	0	0	0	0			5W	Glaciofluvial?
7002	B	N	5	20	50	20	5	0	10YR 5/3										Glaciofluvial? Granite and qtzite pebbles
7003	B	N	5	10	50	30	5	0	10YR 4.5/3	10	0	0	0	0	0			10W	Rnnd mudstone pebbles
7004	B	LD	5	10	50	30	5	0	10YR 4.5/3	10	0	0	0	0	0			10W	Rnnd mudstone pebbles
7004	B	SD	5	10	50	30	5	0	10YR 4.5/3	10	0	0	0	0	0			10W	Rnnd mudstone pebbles
7005	B	N	0	40	50	5	5	0	7.5YR 4.5/3	60	40	0	0	0	0				Glaciofluvial?
7006	B	N	5	5	40	45	5	0	10YR 4.5/3	50	40	10	0	0	0				Granite cobbles and pebbles
7007	B	N	5	5	40	45	5	0	7.5YR 4/3	50	45	5	0	0	0				Granite and friable SS pebbles
7008	B	FD	5	5	40	45	5	0	10YR 4.5/4	50	45	5	0	0	0				Granite and friable SS pebbles
7009	B	N	5	5	45	40	5	0	10YR 4/4	70	30	0	0	0	0			5W	Qtzite and schist pebbles
7010	B	N	5	5	45	40	5	0	7.5YR 3.5/4	90	10	0	0	0	0			3W	Rndd granite pebbles and cobbles

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
7011	B	N	5	5	45	40	5	0	7.5YR 4/3	70	30	0	0	0	0			5W	Sampled below Ae
7013	B	N	5	20	40	30	5	0	10YR 4/2										Granite and qtzite pebbles
7014	B	N	5	20	40	30	5	0	10YR 4/4										Granite and qtzite pebbles
7015	B	N	5	40	30	20	5	0	10YR 4/3										Glaciofluvial Sand (60 cm)
7016	B	LD	5	40	30	20	5	0	10YR 4/4										Glaciofluvial Sand (60 cm)
7016	B	SD	5	40	30	20	5	0	10YR 4/4										Glaciofluvial Sand (60 cm)
7017	B	N	5	20	50	20	5	0	7.5YR 4/3	80	10	10	0	0	0			10W	
7018	B	N	5	5	45	40	5	0	7.5YR 4.5/3.5	85	10	5	0	0	0			5W	
7019	B	N	5	10	60	20	5	0	10YR 4.5/3	95	5	0	0	0	0			5S	
7020	B	FD	5	10	60	20	5	0	7.5YR 3.5/3	70	10	0	0	20	0			15N	Tan quartzite clasts
7021	B	N	5	30	40	20	5	0	10YR 4/3	90	10	0	0	0	0			10NE	Black kimberlite fragments
7022	B	N	10	35	30	10	5	0	7.5YR 4/4	95	5	5	0	0	0			10SE	Rounded granite cobbles
7023	B	N	10	35	40	10	5	0	7.5YR 4/3	90	5	5	0	0	0			20NE	
7025	B	N	10	30	40	15	5	0	7.5YR 4/3	50	40	0	0	0	10			20NE	Granite and qtzite pebbles
7026	B	N	10	30	40	15	5	0	7.5YR 4/3	60	30	0	0	0	10			20NE	30 cm rounded granite boulder
7027	B	N	10	30	40	15	5	0	7.5YR 4/3	85	10	0	0	0	5			30NE	Pegmatite vein? Recrystallized granite?
7028	B	LD	10	30	40	15	5	0	7.5YR 4.5/3	85	10	0	0	0	5			5NE	
7028	B	SD	10	30	40	15	5	0	7.5YR 4.5/3	85	10	0	0	0	5			5NE	
7029	B	N	10	30	40	15	5	0	7.5YR 4.5/3	90	10	0	0	0	0			5NE	
7030	B	N	10	30	40	15	5	0	7.5YR 4.5/3	60	40	0	0	0	0			5NE	
7031	B	N	5	10	50	30	5	0	10YR 3.5/2	95	3	0	0	0	2			0	Fine sand over clay
7032	B	FD	5	10	50	30	5	0	10YR 3.5/3									0	Mottled
7033	B	N	5	40	30	20	5	0	10YR 3.5/3	80	10	5	0	0	5			0	Glaciofluvial sand
7034	B	N	5	60	30	10	5	0	10YR 3.5/3	100	0	0	0	0	0			30SE	Rounded granite and gneiss cobbles
7035	B	N	5	10	40	40	5	0	10YR 4/3	100	0	0	0	0	0			15SE	
7037	B	N	5	50	40	0	5	0	10YR 4.5/3	80	20	0	0	0	0			25Se	Glaciofluvial?
7038	B	N	5	15	50	30	5	0	10YR 4/3	50	50	0	0	0	0			10SE	Mudstone clasts
7039	B	N	5	15	50	30	5	0	10YR 4.5/3	30	70	0	0	0	0			15SE	Rounded qtzite clasts
7040	B	LD	5	15	50	30	5	0	10YR 3.5/3	30	70	0	0	0	0			15SE	Rounded qtzite clasts
7040	B	SD	5	15	50	30	5	0	10YR 3.5/3	30	70	0	0	0	0			15SE	Rounded qtzite clasts
7041	B	N	5	40	40	10	5	0	10YR 3.5/3	30	70	0	0	0	0			0	Glaciofluvial?
7042	B	N	5	5	60	25	5	0	10YR 3.5/3	30	25	25	0	0	20			5SE	Brick red zone (20 cm) under Ah and then mottled B
7043	B	N	5	5	60	25	5	0	10YR 4.5/3	25	70	0	0	0	5			5SE	Good peds; glaciofluvial?
7044	B	FD	5	5	60	25	5	0	10YR 3.5/4	25	70	0	0	0	5			5SE	Good peds; glaciofluvial?
7045	B	N	0	0	60	35	5	0	10YR 3.5/2	20	30	50	0	0	0			0	Mottled peds sampled below Ae

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
7046	B	N	0	0	60	35	5	0	10YR 3.5/2	40	10	30	0	20	0			0	8 cm long pink gneiss cobble
7047	B	N	0	0	60	35	5	0	10YR 4/3	10	0	80	0	10	0			0	6 cm long subangular pink granite pebble
7049	B	N	5	50	40	5	0		10YR 4/3	50	10	40	0	0	0			0	Mottled peds sampled below Ae
7050	B	N	0	5	60	30	5	0	10YR 4/3	10	0	90	0	0	0			0	
7051	B	N	5	5	60	25	5	0	10YR 4/3	0	10	90	0	0	0			0	Rounded gneiss pebbles
7052	B	LD	5	5	60	25	5	0	10YR 4/3	0	10	90	0	0	0			0	Dark green feldspar-phyric andesite pebble?
7052	B	SD	5	5	60	25	5	0	10YR 4/3	0	10	90	0	0	0			0	Dark green feldspar-phyric andesite pebble?
7053	B	N	5	5	35	50	5	0	10YR 4/2	0	0	100	0	0	0			0	Pink quartzite clasts
7054	B	N	5	5	35	50	5	0	10YR 4/2	25	5	60	0	10	0			0	
7055	B	N	10	5	70	10	5	0	10YR 4.5/4	50	10	40	0	0	0			5N	Granite, quartzite, and gneiss or schist clasts
7056	B	FD	10	5	70	10	5	0	7.5YR 4/3	50	10	40	0	0	0			5N	Fine sand and silt. Glaciofluvial?
7057	B	N	10	5	65	15	5	0	10YR 4/3	60	0	40	0	0	0			5N	Granite and cherty mudstone clasts
7058	B	N	5	5	60	15	5	0	10YR 4.5/3	30	0	70	0	0	0			5N	
7059	B	N	5	10	60	20	5	0	7.5YR 3.5/2	70	10	20	0	0	0			5E	Quartzite and granite pebbles
7061	B	N	5	10	60	20	5	0	7.5YR 4/3	30	0	70	0	0	0			8N	Subangular tan quartzite (5 cm)
7062	B	N	5	10	60	20	5	0	10YR 4/3	5	0	95	0	0	0			3N	Pink and tan quartzite cobbles and pebbles
7063	B	N	0	0	35	60	5	0	10YR 3.5/2	30	0	70	0	0	0			3N	No clasts
7064	B	LD	0	0	35	60	5	0	10YR 3.5/2	30	0	70	0	0	0			3N	No clasts
7064	B	SD	0	0	35	60	5	0	10YR 3.5/2	30	0	70	0	0	0			3N	No clasts
7065	B	N	0	5	60	30	5	0	10YR 3.5/2	75	5	20	0	0	0			0	
7066	B	N	0	0	25	70	5	0	10YR 4/3	80	0	20	0	0	0			2W	
7067	B	N	0	0	35	60	5	0	10YR 5/3	70	20	10	0	0	0			5W	
7068	B	FD	0	0	35	60	5	0	10YR 5/3	70	20	10	0	0	0			5W	
7069	B	N	0	5	30	60	5	0		15	0	30	50	5	0			20N	Orange
7070	B	N	0	0	15	80	5	0		15	5	20	20	40	0			15N	Orange
7071	B	N	0	0	15	80	5	0		40	0	20	0	40	0			20N	Orange
7072	B	N	0	0	15	80	5	0		50	0	30	0	20	0			25N	Orange
7073	B	N	0	0	15	80	5	0		60	0	5	0	35	0			15N	Orange
7074	B	N	0	5	40	50	5	0		85	0	0	0	15	0			10N	Glaciofluvial; peds overlain by 45 cm sand and then coarse sand at 80 cm
7075	B	N	0	5	40	50	5	0		85	0	0	0	15	0			5N	35 cm to peds
7076	B	N	0	5	30	60	5	0		80	0	5	0	10	0			25NE	GF-sand from 57-140 cm
7077	B	N	0	5	30	60	5	0		95	0	0	0	5	0			25NE	
7078	B	FD	0	5	30	60	5	0		95	0	0	0	5	0			25NE	
7079	B	SD	0	5	30	60	5	0		95	0	0	0	5	0			25NE	
7080		LD																	

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
7082	B	N	5	0	30	60	5	0		95	0	5	0	0	0			5N	Rounded 4 cm granite pebble
7083	B	N	5	0	30	60	5	0		95	5	0	0	0	0			15NE	Rounded granite and quartzite pebbles
7084	B	N	5	0	30	60	5	0		95	5	0	0	0	0			15NE	Black chert pebbles
7085	B	N	5	5	35	50	5	0		95	5	0	0	0	0			10NE	Rounded granite and quartzite pebbles
7086	B	N	5	5	35	50	5	0		95	5	0	0	0	0			10E	No pebbles
7087	B	N	10	5	30	50	5	0		95	0	0	0	5	0			2E	20 cm of GF-gravel over clayey peds; oval quartzite and granite clasts
7088	B	N	5	5	35	50	5	0		60	10	30	0	0	0			15W	Granite and quartzite pebbles
7089	B	N	10	40	40	5	5	0		60	0	40	0	0	0			5W	Well-sorted glaciofluvial sand
7090	B	N	5	5	35	50	5	0		85	0	15	0	0	0			10W	Peds in quartzite and granite pebble-bearing till
7091	B	N	5	5	35	50	5	0		100	0	0	0	0	0			40W	Peds in quartzite and granite pebble-bearing till
7092	B	FD	5	5	35	50	5	0		100	0	0	0	0	0			40W	Peds in quartzite and granite pebble-bearing till
7093	B	SD	5	5	35	50	5	0		100	0	0	0	0	0			40W	Peds in quartzite and granite pebble-bearing till
7094		LD																	
7096	B	N	5	5	20	60	10	0		100	0	0	0	0	0			15W	Sandstone and kimberlite clasts
7097	B	N	0	0	35	60	5	0		100	0	0	0	0	0			5W	Good peds with no clasts
7098	B	N	0	0	40	55	5	0		85	10	5	0	0	0			3W	
7099	B	N	5	0	40	55	5	0		85	10	5	0	0	0			5W	Granite pebbles
7100	B	N	0	0	45	55	5	0		85	5	0	0	10	0			5W	GF?
7101	B	N	0	0	35	60	5	0		35	5	30	0	30	0			2W	Granite and quartzite pebbles
7102	B	N	0	0	20	75	5	0		50	10	30	0	10	0			2W	More oxidized than normal with well-rounded quartzite pebbles and cobbles
7103	B	N	0	5	70	20	5	0		85	5	5	0	5	0			25W	On slope of diatreme with 50 cm of sand over till
7104	B	N	0	0	45	50	5	0		90	0	10	0	0	0			15NW	Quartzite pebbles
7105	B	N	5	0	20	70	5	0		90	5	5	0	0	0			20N	Angular red jasper fragments
7106	B	FD	5	0	20	70	5	0		90	5	5	0	0	0			20N	
7107	B	SD	5	0	20	70	5	0		90	5	5	0	0	0			20N	
7108		LD																	
7110	B	N	0	0	35	60	5	0		100	0	0	0	0	0			10NE	
7111	B	N	0	0	35	60	5	0		95	0	5	0	0	0			5NE	
7112	B	N	0	0	30	65	5	0		60	0	40	0	0	0			30NW	
7113	B	N	0	0	30	65	5	0		60	0	20	0	20	0			30N	
7114	B	N	0	0	30	65	5	0		40	0	0	0	60	0			10N	
7115	B	N	0	0	30	65	5	0		60	0	0	0	40	0			5N	
7116	B	N	0	0	30	65	5	0		50	0	0	0	50	0			5NE	
7117	B	N	0	5	40	50	5	0		40	0	50	0	10	0			0	Lacustrine? Black angular quartz. 40 cm of clay over 40 cm of sand
7118	B	N	5	5	40	45	5	0		50	0	50	0	0	0			0	Granite-bearing till

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
7119	B	N	5	5	60	25	5	0		10	0	60	10	20	0			0	20 cm of GF granite and quartzite gravel over 50 cm of GF sandy silt
7120	B	FD	5	5	40	45	5	0		10	0	60	10	20	0			0	100 cm of GF-silt
7121	B	SD	5	5	40	45	5	0		10	0	60	10	20	0			0	100 cm of GF-silt
7122		LD																	
7124	B	N	5	5	40	45	5	0		30	0	65	0	5	0			0	GF-silt
7125	B	N	5	5	40	45	5	0		60	5	35	0	0	0			0	Till
7126	B	N	0	0	60	35	5	0		30	0	70	0	0	0			5E	GF? Till? 60 cm of GF sandy silt over till
7127	B	N	0	0	40	55	5	0		45	0	45	0	10	0			3E	25 cm of GF silt over till
7128	B	N	0	0	60	35	5	0		70	0	10	0	20	0			5N	GF
7129	B	N	0	0	60	35	5	0		40	0	20	20	20	0			5N	GF
7130	B	N	5	40	40	10	5	0		60	0	10	10	20	0			5N	GF gravel and sand from 50-150
7131	B	N	25	30	40	0	5	0		0	0	70	30	0	0			2N	37 cm of coarse gravel with angular siderite
7132	B	N	15	40	40	0	5	0		50	0	0	20	30	0			5N	GF sand
7133	B	N	5	5	25	60	5	0		90	0	10	0	0	0			5N	29 cm Om, 12 cm GF silty sand, and 20 cm of GF gravel
7134	B	FD	35	5	5	50	5	0		90	5	5	0	0	0			5N	Granite and chert clasts
7135	B	SD	35	5	5	50	5	0		90	5	5	0	0	0			5N	Granite and chert clasts
7136		LD																	
7138	B	N	5	0	25	65	5	0		10	0	10	80	0	0			5N	Till?
7139	B	N	5	5	80	10	0	0		10	0	0	90	0	0			5N	Till
7140	B	N	0	0	35	60	5	0		100	0	0	0	0	0			5E	GF? Till?
7141	B	N	0	0	35	60	5	0		95	5	0	0	0	0			5E	
7142	B	N	5	15	60	15	5	0		80	0	5	0	15	0			0	GF? Till? Rounded cobbles and pebbles
7143	B	N	5	15	60	15	5	0		75	0	20	0	5	0			25W	GF? Till?
7144	B	N	5	10	40	35	10	0		70	0	0	0	30	0			5W	Angular granite clasts
7145	B	N	5	10	40	40	5	0		50	40	0	0	10	0			10SE	Granite cobbles
7146	B	N	5	10	60	20	5	0		95	0	5	0	0	0			10SE	Till?
7147	B	N	5	10	60	20	5	0		55	0	40	0	5	0			5SE	Rounded granite and quartzite pebbles
7148	B	FD	5	10	60	20	5	0		55	0	40	0	5	0			5SE	Till
7149	B	SD	5	10	60	20	5	0		55	0	40	0	5	0			5SE	Till
7149		LD																	
7150		LD																	
7152	B	N	5	10	60	20	5	0		50	0	50	0	0	0			3S	GF?
7153	B	N	5	5	15	70	5	0		0	0	100	0	0	0			3W	Clayey till
7154	B	N	5	5	15	70	5	0		0	0	100	0	0	0			0	Clayey till
7155	B	N	5	5	15	70	5	0		0	0	100	0	0	0			0	Till

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
7156	B	N	5	5	15	70	5	0		5	0	95	0	0	0			10SE	Till
7157	B	N	5	5	15	70	5	0		5	0	95	0	0	0			3SE	Till
7158	B	N	5	5	15	70	5	0		5	0	95	0	0	0			0	Till
7159	B	N	5	5	15	70	5	0		5	0	95	0	0	0			0	Till
7160	B	N	5	5	15	70	5	0		0	0	100	0	0	0			0	Soil collected at 386260E, 6540636N
7161	B	N	5	5	25	60	5	0		5	0	95	0	0	0			0	GF?
7162	B	FD	0	5	30	60	5	0		5	0	95	0	0	0			0	GF? Silt from 50 to 150 cm
7163	B	SD	0	5	30	60	5	0		5	0	95	0	0	0			0	GF? Silt from 50 to 150 cm
7163		LD																	
7164		LD																	
7166	B	N	5	10	50	30	5	0		5	0	95	0	0	0			0	GF clayey silt
7167	B	N	0	5	60	30	5	0		70	0	15	0	15	0			5SE	GF Silt
7168	B	N	0	10	60	25	5	0		70	0	10	0	20	0			0	GF Silt
7169	B	N	0	5	60	30	5	0		20	0	75	0	5	0			5W	GF Silt
7170	B	N	0	5	60	30	5	0		75	0	0	0	25	0			5SE	GF Silt
7171	B	N	10	15	50	20	5	0		90	0	10	0	0	0			15SE	GF? Upper 40 cm is sandy till?
7172	B	N	10	5	20	60	5	0		85	0	10	0	5	0			0	Tan and pink quartzite, granite, paragneiss, and kimberlite clasts
7173	B	N	5	5	70	15	5	0		50	0	0	0	50	0			3SE	GF Silt
7174	B	N	5	5	35	50	5	0		30	30	10	0	30	0			0	Till? Angular quartzite boulders and rounded granite pebbles
7175	B	N	5	5	35	50	5	0		40	30	10	0	20	0			0	Angular pink quartzite boulders; at least 1.2 m of GF sand 10 m west of 6175; new hole dug 10 m south of 6175.
7176	B	FD	5	5	35	50	5	0		40	30	10	0	20	0			0	Till
7177	B	SD	5	5	35	50	5	0		40	30	10	0	20	0			0	Till
7177		LD																	
7178		LD																	
7180	B	N	0	10	60	25	5	0		60	0	30	0	10	0			5SE	GF Silt
7181	B	N	5	5	55	30	5	0	10YR 4/3	90	5	0	5	0	0			5W	Rndd qtzite and granite cobbles and pebbles
7182	B	N	5	5	45	40	5	0	10YR 3.5/4	95	5	0	0	0	0			5W	Chert, qtzite, and granite pebbles
7183	B	N	5	5	45	40	5	0	10YR 4/4									5W	Chert, qtzite, and granite pebbles
7184	B	SD	5	5	45	40	5	0	10YR 4/3									5W	Chert, qtzite, and granite pebbles
7184		LD																	
7185	B	N	5	5	45	40	5	0	10YR 4/3	60	35	5	0	0	0			5W	Carb and granite pebbles
7186	B	N	5	10	50	30	5		10YR 4/3	90	10	0	0	0	0			20NE	Qtzite and carb pebbles
7187	B	N	5	5	75	15	5	0	7.5YR 4.5/2.5	80	20	0	0	0	0			5W	Carbonate at 50 cm underlain by 60 cm of sand and then till
7188	B	N	0	15	70	10	5	0	10YR 4.5/3	90	10	0	0	0	0			5NW	Glaciofluvial (46 cm to peds)

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
7189	B	N	0	10	35	50	5	0	10YR 3.5/3.5	95	5	0	0	0	0			5NW	105 cm to top of till peds under glaciofluvial sand
7194	B	N	5	10	40	40	5	0		0	0	100	0	0	0			0	GF Sand
7195	B	N	5	40	40	10	5	0		70	10	0	20	0	0			3E	GF Sand
7196	B	N	0	5	40	50	5	0		0	0	100	0	0	0			0	GL Clay? Till?
7197	B	N	0	5	40	50	5	0		0	0	100	0	0	0			0	GL Clay? Till?
7198	B	N	5	10	60	20	5	0		0	0	100	0	0	0			0	GF Silt
7199	B	N	10	5	60	25	5	0		45	0	55	5	0	0			15W	GF silt with rounded quartzite cobbles
7200	B	N	20	40	30	5	5	0		20	0	80	0	0	0			5N	GF Sand; quartzite, granite, and black chert clasts
7201	B	N	10	5	40	40	5	0		50	0	50	0	0	0			10S	GF? Till? Rounded quartzite pebbles
7202	B	N	5	5	60	25	5	0		50	0	50	0	0	0			0	GF Silt?
7203	B	FD	5	5	60	25	5	0		5	0	95	0	0	0			3S	Till? GF Silt
7204	B	SD	5	5	60	25	5	0		50	0	50	0	0	0			0	GF Silt?
7204		LD																	
7205		LD																	
7207	B	N	5	5	25	60	5	0		5	0	95	0	0	0			3S	Till? GF Silt?
7208	B	N	5	5	25	60	5	0		0	0	100	0	0	0			5N	Till
7209	B	N	5	5	25	60	5	0		0	0	100	0	0	0			0	Till
7210	B	N	5	5	25	60	5	0		50	0	50	0	0	0			10S	Till
7211	B	N	5	5	25	60	5	0		50	0	50	0	0	0			0	GL Clay? Till?
7212	B	N	0	10	60	25	5	0		90	0	10	0	0	0			0	40 cm of clayey silt; 100 cm of sand; 60 cm of clayey silt; black till at 205 cm
7213	B	N	5	5	35	50	5	0		0	0	100	0	0	0			3S	GF clayey silt
7214	B	N	5	5	35	50	5	0		0	0	100	0	0	0			3S	GF Silt
7215	B	N	5	5	35	50	5	0		0	0	100	0	0	0			5N	GF Silt
7216	B	N	10	5	20	60	5	0		30	0	60	10	0	0			10E	Till? Granite and quartzite clasts
7217	B	FD	10	5	20	60	5	0		50	0	10	40	0	0			5E	Till with granite, quartzite, and carbonate clasts
7218	B	SD	10	5	20	60	5	0		50	0	10	40	0	0			5E	Till with granite, quartzite, and carbonate clasts
7218		LD																	
7221	B	N	0	0	60	35	5	0		10	0	30	30	30	0			5E	GF Silt
7222	B	N	0	0	25	70	5	0		30	0	70	0	0	0			5E	Orange, oxidized till? GF clay?
7223	B	N	0	0	45	50	5	0		20	0	80	0	0	0			40E	GF Silt?
7224	B	N	0	0	60	35	5	0		0	0	20	0	80	0			40E	GF Silt?
7225	B	N	5	5	60	25	5	0		80	0	10	10	0	0			50S	GF?
7226	B	N	5	5	25	60	5	0		70	0	20	0	10	0			60E	Orange oxidized till?
7227	B	N	5	5	25	60	5	0		60	0	20	10	10	0			50E	Till with angular granite fragments
7228	B	N	5	5	60	25	5	0		75	0	10	5	10	0			30N	Orange oxidized GF silt with quartzite cobbles

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
7229	B	N	5	50	30	10	5	0		90	0	10	0	0	0			40E	GF sand over Wapiti sandstone outcrop
7230	B	N	0	0	65	30	5	0		50	0	20	20	10	0			60E	GF Silt
7231	B	FD	0	0	65	30	5	0		50	0	20	20	10	0			60E	GF Silt
7232	B	SD	0	0	65	30	5	0		50	0	20	20	10	0			60E	GF Silt
7232		LD																	
8001	C	N	0	0	30	65	0	5	10YR 3/2	80	20	0	0	0	0			5W	Wispy white carb streaks
8002	C	N	5	5	25	60	0	5	10YR 3/2										White carb and rusty friable pebbles
8003	C	N	5	0	30	60	0	5	10YR 4/3	10	0	0	0	0	0			10W	White carb blebs
8004	C	LD	5	0	30	60	0	5	10YR 4.5/2	10	0	0	0	0	0			10W	White carb blebs
8004	C	SD	5	0	30	60	0	5	10YR 4.5/2	10	0	0	0	0	0			10W	White carb blebs
8005	C	N	5	10	40	40	0	5	10YR 4/2	60	40	0	0	0	0				White carb blebs
8006	C	N	5	5	25	60	0	5	10YR 3.5/3	50	40	10	0	0	0				qtzite pebbles
8007	C	N	5	5	35	50	0	5	2.5Y 3.5/2	50	45	5	0	0	0				White carb and grey mudst peebles
8008	C	FD	5	5	35	50	0	5	2.5Y 3.5/3	50	45	5	0	0	0				White carb and pink granite pebbles
8009	C	N	5	0	45	50	0	5	2.5Y 3/2	70	30	0	0	0	0			5W	White carb pebbles
8010	C	N	5	0	45	50	0	0	2.5Y 3.5/2	90	10	0	0	0	0			3W	No carb. Lower B?
8011	C	N	5	0	45	45	0	5	10YR 3/2	70	30	0	0	0	0			5W	Good Ck
8013	C	N	5	5	35	50	0	5	10YR 3/2										White carb pebbles, mottled
8014	C	N	5	5	35	50	0	5	10YR 3/2										Carb pebbles?
8015	C	N	5	10	30	50	0	5	10YR 3/2										Qtzite and granite pebbles
8016	C	SD	5	10	30	50	0	5	10YR 3/2										Qtzite and granite pebbles
8016		LD																	
8017	C	N	0	0	30	60	0	10	10YR 3/2	80	10	10	0	0	0			10W	
8018	C	N	0	0	30	60	0	10	10YR 3/2	85	10	5	0	0	0			5W	
8019	C	N	0	5	40	50	0	5	10YR 3/2	95	5	0	0	0	0			5S	
8020	C	FD	0	0	20	40	0	40	10YR 5.5/4	70	10	0	0	20	0			15N	
8021	C	N	10	5	40	40	0	5	7.5YR 3.5/2	90	10	0	0	0	0			10NE	Qtzite and kimberlite fragments
8022	C	N	10	5	40	40	0	5	5YR 3.5/1	95	5	5	0	0	0			10SE	
8023	C	N	5	5	40	40	0	10	5YR 3.5/1	90	5	5	0	0	0			20NE	
8025	C	N	5	5	30	50	0	10	7.5YR 3/3	50	40	0	0	0	10			20NE	
8026	C	N	5	5	30	50	0	10	7.5YR 3.5/3	60	30	0	0	0	10			20NE	
8027	C	N	5	5	30	50	0	10	7.5 YR 3.5/2	85	10	0	0	0	5			30NE	Carbonate pebbles
8028	C	SD	5	5	30	50	0	5	7.5YR 3.5/2	85	10	0	0	0	5			5NE	
8028		LD																	
8029	C	N	5	5	30	50	0	5	7.5YR 3.5/2	90	10	0	0	0	0			5NE	

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Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
8030	C	N	5	5	30	40	0	10	7.5YR 3.5/3	60	40	0	0	0	0			5NE	Interbedded sand and clay; very abundant carbonate; wet sand at 115 cm
8031	C	N	5	5	20	40	0	30	7.5YR 3.5/3	95	3	0	0	0	2			0	Interbedded sand and clay; very abundant carbonate; wet sand at 115 cm
8032	C	FD	5	5	20	40	0	30	10 YR 3.5/3									0	Interbedded sand and clay; very abundant carbonate; wet sand at 115 cm
8033	C	N	0	10	40	20	0	30	10YR 4.5/3	80	10	5	0	0	5			0	Interbedded white calacreous clay and sand
8034	C	N	5	60	30	10	0	5	10YR 5/3	100	0	0	0	0	0			30SE	White carbonate streaks
8035	C	N	5	10	40	40	0	5	10YR 3.5/2	100	0	0	0	0	0			15SE	Good till
8037	C	N	0	30	50	15	0	5	10YR 4/3	80	20	0	0	0	0			25Se	Till? Glaciofluvial?
8038	C	N	5	5	40	45	0	5	10YR 3.5/2	50	50	0	0	0	0			10SE	Oval qtzite clasts
8039	C	N	5	10	50	30	0	5	10YR 3/2	30	70	0	0	0	0			15SE	
8040	C	SD	5	10	50	30	0	5	10YR 3.5/2	30	70	0	0	0	0			15SE	
8040		LD																	
8041	C	N	5	10	30	50	0	5	10YR 3/2	30	70	0	0	0	0			0	Clay till? Starts at 90 cm below gravel layer
8042	C	N	5	10	50	20	0	15	10YR 4/3	30	25	25	0	0	20			5SE	Interbedded calcareous clay and orange sand at 70 cm
8043	C	N	5	30	30	10	0	15	10YR 5/4	25	70	0	0	0	5			5SE	Glaciofluvial calcareous sand?
8044	C	FD	5	30	30	10	0	15	10YR 4/4	25	70	0	0	0	5			5SE	Glaciofluvial calcareous sand?
8045	C	N	0	0	30	60	0	10	10YR 4/2	20	30	50	0	0	0			0	White carbonate blebs and streaks
8046	C	N	0	10	40	45	0	5	10YR 3.5/2	40	10	30	0	20	0			0	White carbonate blebs and streaks
8047	C	N	0	0	50	45	0	5	10YR 4/2	10	0	80	0	10	0			0	
8049	C	N	5	40	50	0	5		10YR 3.5/3	50	10	40	0	0	0			0	White carbonate blebs and streaks
8050	C	N	0	5	50	40	0	5	10YR 4/3	10	0	90	0	0	0			0	Poor carbonate; lower B?
8051	C	N	5	5	50	35	0	5	10YR 4/2	0	10	90	0	0	0			0	
8052	C	SD	5	5	50	35	0	5	10YR 3.5/2	0	10	90	0	0	0			0	
8052		LD																	
8053	C	N	5	5	25	60	0	5	10YR 4.5/3	0	0	100	0	0	0			0	
8054	C	N	5	5	25	60	0	5	10YR 3.5/2	25	5	60	0	10	0			0	
8055	C	N	5	5	25	60	0	5	10YR 3.5/2	50	10	40	0	0	0			5N	Good carbonate blebs
8056	C	FD	5	5	25	60	0	5	2.5Y 4.5/4	50	10	40	0	0	0			5N	Glaciofluvial?
8057	C	N	0	0	50	45	0	5	10YR 3.5/3	60	0	40	0	0	0			5N	Quartzite clasts
8058	C	N	0	0	50	45	0	5	10YR 3.5/3	30	0	70	0	0	0			5N	Swamp 40 m to the north
8059	C	N	0	0	20	60	0	20	2.5Y 5.5/2	70	10	20	0	0	0			5E	Abundant calcite crystals
8061	C	N	0	0	30	50	0	20	2.5Y 4/3	30	0	70	0	0	0			8N	Abundant carbonate
8062	C	N	5	5	30	55	0	5	10YR 4.5/3.5	5	0	95	0	0	0			3N	White rounded limestone pebbles
8063	C	N	0	0	35	60	0	5	10YR 3.5/2	30	0	70	0	0	0			3N	Dry
8064	C	SD	0	0	35	60	0	5	10YR 3.5/2	30	0	70	0	0	0			3N	Dry
8064		LD																	

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direc-tion)	Comments
8065	C	N	0	0	35	60	0	5	10YR 4.5/3	75	5	20	0	0	0			0	
8066	C	N	0	0	50	30	0	20	10YR 3.5/2	80	0	20	0	0	0			2W	
8067	C	N	0	0	30	60	0	10	10YR 3/2	70	20	10	0	0	0			5W	
8068	C	FD	0	0	30	60	0	10	10YR 3/2	70	20	10	0	0	0			5W	
8069	C	N								15	0	30	50	5	0			20N	Tan-no carbonate; not sampled
8070	C	N	0	0	15	80	5	0		15	5	20	20	40	0			15N	Tan-no carbonate; not sampled
8071	C	N	0	0	15	80	5	0		40	0	20	0	40	0			20N	Fine orange sand at 100 cm; not sampled
8072	C	N	0	0	15	80	5	0		50	0	30	0	20	0			25N	Orange sand at 100 cm; not sampled
8073	C	N	0	0	15	80	5	0		60	0	5	0	35	0			15N	Tan-no carbonate; not sampled
8074	C	N	0	5	40	50	5	0		85	0	0	0	15	0			10N	Tan-no carbonate; not sampled
8075	C	N	0	70	30	0	0	0		85	0	0	0	15	0			5N	Tan-no carbonate; not sampled
8076	C	N	5	25	60	10	0	0		80	0	5	0	10	0			25NE	
8077	C	N	5	25	60	10	0	0		95	0	0	0	5	0			25NE	
8078	C	FD	5	25	60	10	0	0		95	0	0	0	5	0			25NE	
8079	C	SD	5	25	60	10	0	0		95	0	0	0	5	0			25NE	
8082	C	N	24	40	35	5	0	0		95	0	5	0	0	0			5N	Auger refusal at 100 cm; angular black fragments (kimberlite bedrock?)
8083	C	N	10	50	35	5	0	0		95	5	0	0	0	0			15NE	Black angular fragment grit at 85 cm
8084	C	N	5	55	35	5	0	0		95	5	0	0	0	0			15NE	Black angular fragment grit at 110 cm
8085	C	N	5	50	30	15	0	0		95	5	0	0	0	0			10NE	Grit at 100 cm
8086	C	N	5	20	60	15	0	0		95	5	0	0	0	0			10E	Black angular fragments
8087	C	N	0	15	15	50	0	20		95	0	0	0	5	0			2E	Abundant carbonate
8088	C	N	5	10	20	60	0	5		60	10	30	0	0	0			15W	Angular kimberlite and granite clasts
8089	C	N	0	20	25	50	0	20		60	0	40	0	0	0			5W	Hard compact poorly-sorted till at 85 cm
8090	C	N	0	15	50	30	0	20		85	0	15	0	0	0			10W	Grit at 100 cm
8091	C	N	0	15	50	20	0	15		100	0	0	0	0	0			40W	Grit at 100 cm
8092	C	FD	0	15	50	20	0	15		100	0	0	0	0	0			40W	Grit at 100 cm
8093	C	SD	0	15	50	20	0	15		100	0	0	0	0	0			40W	Grit at 100 cm
8094		LD																	
8096	C	N	0	15	50	30	0	5		100	0	0	0	0	0			15W	Grit at 100 cm
8097	C	N	0	15	25	50	0	10		100	0	0	0	0	0			5W	Grit at 70 cm
8098	C	N	0	5	20	60	0	15		85	10	5	0	0	0			3W	Grit at 100 cm
8099	C	N	0	5	50	40	0	5		85	10	5	0	0	0			5W	Grit and CaCO3 at 90 cm
8100	C	N	0	5	35	60	0	0		85	5	0	0	10	0			5W	Till? Lacustrine?
8101	C	N	0	5	45	50	0	0		35	5	30	0	30	0			2W	Till?
8102	C	N	0	0	50	50	0	0		50	10	30	0	10	0			2W	Till?

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Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
8103	C	N	0	10	60	25	0	5		85	5	5	0	5	0			25W	Grit at 95 cm
8104	C	N	5	20	40	30	0	5		90	0	10	0	0	0			15NW	Grit at 75 cm; scraping on bedrock at 110 cm?
8105	C	N	20	50	20	5	0	5		90	5	5	0	0	0			20N	Coarse kimberlite sand
8106	C	FD	5	5	50	35	0	5		90	5	5	0	0	0			20N	No coarse sand like 8105
8107	C	SD	5	5	50	35	0	5		90	5	5	0	0	0			20N	No coarse sand like 8105
8108		LD																	
8110	C	N	0	10	40	45	0	5		100	0	0	0	0	0			10NE	Grit at 100 cm
8111	C	N	0	10	40	45	0	5		95	0	5	0	0	0			5NE	Pink granite pebbles
8112	C	N	10	40	40	10	0	0		60	0	40	0	0	0			30NW	Kimberlite grit at 110 cm
8113	C	N	0	30	60	10	0	0		60	0	20	0	20	0			30N	Grit at 125 cm
8114	C	N	0	15	60	25	0	0		40	0	0	0	60	0			10N	
8115	C	N	0	5	60	20	0	0		60	0	0	0	40	0			5N	
8116	C	N	0	5	20	75	0	0		50	0	0	0	50	0			5NE	
8117	C	N	5	5	25	60	0	5		40	0	50	0	10	0			0	Grit at 85 cm
8118	C	N	5	5	25	60	0	5		50	0	50	0	0	0			0	Till
8119	C	N	5	5	15	60	0	15		10	0	60	10	20	0			0	Carbonate-rich till
8120	C	FD	5	5	15	60	0	15		10	0	60	10	20	0			0	Till
8121	C	SD	5	5	15	60	0	15		10	0	60	10	20	0			0	Till
8122		LD																	
8124	C	N	0	0	40	40	0	20		30	0	65	0	5	0			0	No grit. GF?
8125	C	N	5	5	20	60	0	10		60	5	35	0	0	0			0	Black chert fragments?
8126	C	N	5	5	30	50	0	10		30	0	70	0	0	0			5E	Till?
8127	C	N	0	0	35	60	0	5		45	0	45	0	10	0			3E	Till
8128	C	N	0	0	60	40	0	0		70	0	10	0	20	0			5N	GF? Till?
8129	C	N	0	0	60	40	0	0		40	0	20	20	20	0			5N	GF
8130	C	N	0	5	75	20	0	0		60	0	10	10	20	0			5N	GF
8131	C	N	10	15	40	35	0	0		0	0	70	30	0	0			2N	Till?
8132	C	N	5	5	40	50	0	0		50	0	0	20	30	0			5N	40 cm OM, 12 cm GF sand, 15 cm GF gravel and till to 190 cm
8133	C	N	15	20	30	30	0	5		90	0	10	0	0	0			5N	Angular granite and serpentinite fragments?
8134	C	FD	5	5	25	60	0	5		90	5	5	0	0	0			5N	
8135	C	SD	5	5	25	60	0	5		90	5	5	0	0	0			5N	
8136		LD																	
8138	C	N	5	5	25	60	0	5		10	0	10	80	0	0			5N	Auger refusal at 130 cm
8139	C	N	0	20	30	50	0	0		10	0	0	90	0	0			5N	Green reduced silty sand
8140	C	N	0	0	30	70	0	0		100	0	0	0	0	0			5E	GF? Till?

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
8141	C	N	0	5	5	50	0	40		95	5	0	0	0	0			5E	Carbonate-rich till
8142	C	N	20	5	25	50	0	0		80	0	5	0	15	0			0	Till
8143	C	N	10	10	25	50	0	5		75	0	20	0	5	0			25W	Till
8144	C	N	5	10	40	25	20	0		70	0	0	0	30	0			5W	Organic-rich till
8145	C	N	0	5	30	60	5	0		50	40	0	0	10	0			10SE	Oxidised till
8146	C	N	5	5	30	60	0	0		95	0	5	0	0	0			10SE	Till
8147	C	N	5	5	30	60	0	0		55	0	40	0	5	0			5SE	Till
8148	C	FD	5	5	30	60	0	0		55	0	40	0	5	0			5SE	Till
8149	C	SD	5	5	30	60	0	0		55	0	40	0	5	0			5SE	Till
8149		LD																	
8150		LD																	
8152	C	N	5	5	30	60	0	0		50	0	50	0	0	0			3S	Till with granite pebbles
8153	C	N	5	5	15	70	0	5		0	0	100	0	0	0			3W	Clayey till
8154	C	N	5	5	15	70	0	5		0	0	100	0	0	0			0	Clayey till
8155	C	N	5	5	15	70	0	5		0	0	100	0	0	0			0	Till
8156	C	N	5	5	15	70	0	5		5	0	95	0	0	0			10SE	Till
8157	C	N	5	5	15	70	0	5		5	0	95	0	0	0			3SE	Till
8158	C	N	5	5	15	70	0	5		5	0	95	0	0	0			0	Till
8159	C	N	5	5	15	70	0	5		5	0	95	0	0	0			0	Till
8160	C	N	5	5	15	70	0	5		0	0	100	0	0	0			0	Till
8161	C	N	5	5	25	60	0	5		5	0	95	0	0	0			0	Till
8162	C	FD	5	5	25	60	0	5		5	0	95	0	0	0			0	Till
8163	C	SD	5	5	25	60	0	5		5	0	95	0	0	0			0	Till
8163		LD																	
8164		LD																	
8166	C	N	5	5	25	60	0	5		5	0	95	0	0	0			0	Till at 70 cm depth
8167	C	N	5	5	25	60	0	5		70	0	15	0	15	0			5SE	Till at 60 cm depth
8168	C	N	5	5	25	60	0	5		70	0	10	0	20	0			0	Till at 50 cm depth
8169	C	N	5	5	25	60	0	5		20	0	75	0	5	0			5W	Till at 130 cm depth
8170	C	N	5	5	25	60	0	5		75	0	0	0	25	0			5SE	Till at 130 cm depth
8171	C	N	10	5	20	60	0	5		90	0	10	0	0	0			15SE	Till with granite clasts
8172	C	N	10	5	20	60	0	5		85	0	10	0	5	0			0	Till
8173	C	N	5	5	25	60	0	5		50	0	0	0	50	0			3SE	Till
8174	C	N	5	5	25	60	0	5		30	30	10	0	30	0			0	Till with granite pebbles
8175	C	N	5	5	25	60	0	5		40	30	10	0	20	0			0	Till

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
8176	C	FD	5	5	25	60	0	5		40	30	10	0	20	0			0	Till
8177	C	SD	5	5	25	60	0	5		40	30	10	0	20	0			0	Till
8177		LD																	
8178		LD																	
8180	C	N	5	5	25	60	0	5		60	0	30	0	10	0			5SE	Till at 100 cm depth
8181	C	N	10	5	50	30	0	5	2.5Y 4/2	90	5	0	5	0	0			5W	Rndd qtzite and granite cobbles and pebbles
8182	C	N	10	10	35	40	0	5	10YR 3.5/2	95	5	0	0	0	0			5W	White carb pebbles
8183	C	N	10	10	35	40	0	5	10YR 3/2									5W	White carb and qtzite pebbles
8184	C	SD	10	10	35	40	0	5	10YR 3.5/2									5W	White carb and qtzite pebbles
8184		LD																	
8185	C	N	5	5	35	45	0	10	10YR 3.5/2	60	35	5	0	0	0			5W	Carb and friable ss pebbles
8186	C	N	5	5	45	40	5		10YR 3.5/2	90	10	0	0	0	0			20NE	White carb pebbles
8187	C	N	0	5	30	60	0	5	10YR 3.5/2	80	20	0	0	0	0			5W	
8188	C	N	0	5	60	25	0	10	10YR 5/4	90	10	0	0	0	0			5NW	50 cm of glaciofluvial sand over dry till?
8189	C	N	0	5	30	55	0	10	10YR 3/2	95	5	0	0	0	0			5NW	
8194	C	N	5	40	40	10	5	0		0	0	100	0	0	0			0	GF Sand; refusal in gravel bed at 160 cm
8195	C	N	5	5	25	60	0	5		70	10	0	20	0	0			3E	Till at 100 cm depth
8196	C	N	5	5	25	60	0	5		0	0	100	0	0	0			0	Till? GF?
8197	C	N	5	5	25	60	0	5		0	0	100	0	0	0			0	Black till at 70 cm depth
8198	C	N	5	5	25	60	0	5		0	0	100	0	0	0			0	Black till at 70 cm depth
8199	C	N	5	30	55	10	0	0		45	0	55	5	0	0			15W	GF Sand; refusal at 200 cm
8200	C	N	5	15	40	40	0	0		20	0	80	0	0	0			5N	GF Silt? Till? Refusal at 220 cm on boulder
8201	C	N	5	5	25	60	0	5		50	0	50	0	0	0			10S	Black till at 80 cm with rounded quartzite pebbles
8202	C	N	5	5	25	60	0	5		50	0	50	0	0	0			0	Till at 180 cm; GF clay on top
8203	C	FD	5	5	25	60	0	5		5	0	95	0	0	0			3S	Till
8204	C	SD	5	5	25	60	0	5		50	0	50	0	0	0			0	Till at 80 cm; GF clay on top
8204		LD																	
8205		LD																	
8207	C	N	5	5	25	60	0	5		5	0	95	0	0	0			3S	Till
8208	C	N	5	5	25	60	0	5		0	0	100	0	0	0			5N	Till
8209	C	N	5	5	25	60	0	5		0	0	100	0	0	0			0	Till
8210	C	N	5	5	25	60	0	5		50	0	50	0	0	0			10S	Till
8211	C	N	5	5	25	60	0	5		50	0	50	0	0	0			0	Black till at 140 cm depth
8212	C	N	5	5	25	60	0	5		90	0	10	0	0	0			0	Black till at 205 cm depth
8213	C	N	5	5	25	60	0	5		0	0	100	0	0	0			3S	Black till at 95 cm depth

Appendix 3 - Sample Descriptions

Field Number	Media Type	Sample Type	Soil Composition Field Estimates %Gravel	Soil Composition Field Estimates %Sand	Soil Composition Field Estimates %Silt	Soil Composition Field Estimates %Clay	Soil Composition Field Estimates %Org	Soil Composition Field Estimates %Carb	Munsell Colour	Vegetation %Poplar	Vegetation %Aspen	Vegetation %Spruce	Vegetation %Birch	Vegetation %Alder	Vegetation %Balsam	Vegetation %Willow	Vegetation %Tamarac	Slope (degrees/direction)	Comments
8214	C	N	5	5	25	60	0	5		0	0	100	0	0	0			3S	Brown till at 90 cm depth?
8215	C	N	5	5	25	60	0	5		0	0	100	0	0	0			5N	Till?
8216	C	N	5	0	35	60	0	0		30	0	60	10	0	0			10E	Coffee brown till with angular granite fragments
8217	C	FD	5	0	35	60	0	0		50	0	10	40	0	0			5E	Coffee till
8218	C	SD	5	0	35	60	0	0		50	0	10	40	0	0			5E	Coffee till
8219		LD																	
8221	C	N	5	5	35	60	0	0		10	0	30	30	30	0			5E	Till collected from creek bank
8222	C	N	5	5	35	60	0	0		30	0	70	0	0	0			5E	Till collected along creek bank 20 m to the east
8223	C	N	5	5	25	60	5	0		20	0	80	0	0	0			40E	Black coal fragments in till? Bedrock?
8224	C	N	5	5	25	60	5	0		0	0	20	0	80	0			40E	Black coal fragments in till? Bedrock?
8225	C	N	10	10	20	60	0	0		80	0	10	10	0	0			50S	Till collected below Ck
8226	C	N	0	0	30	70	0	0		70	0	20	0	10	0			60E	Glauconitic siltstone outcrop?
8227	C	N	10	5	20	65	0	0		60	0	20	10	10	0			50E	Good till in creek bed
8228	C	N	10	5	20	65	0	0		75	0	10	5	10	0			30N	Dark green grey till with distinct sulphur smell
8229	C	N	0	20	40	20	20	0		90	0	10	0	0	0			40E	Sandstone blocks with green siltstone below
8230	C	N	5	5	25	60	5	0		50	0	20	20	10	0			60E	Till? Or bedrock? At creek bottom with coal layers
8231	C	FD	5	5	25	60	5	0		50	0	20	20	10	0			60E	Till? Or bedrock? At creek bottom with coal layers
8232	C	SD	5	5	25	60	5	0		50	0	20	20	10	0			60E	Till? Or bedrock? At creek bottom with coal layers
8232		LD																	

Appendix 4 - Group 1F and pH Analytical Results

1F	Aqua regia digestion, ICP-MS determination
LOI	Loss on ignition

Sample Type

N	Normal
FD	Field duplicate
SD	Sample duplicate
LD	Lab duplicate
STD	Standard

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
1001		A004998	N	15	0.03	1.1	1	254	1277.6			25.22	8.6	0.5	3.7	0.8	0.16	22.42				0.11	0.1
1002		A004998	N	31	0.03	0.05	1.3	255	472			26.45	22.81	0.6	2.9	0.9	0.12	23.41				0.1	0.1
1003		A004998	N	17	0.04	0.05	0.6	293	488.2			26.48	19.88	0.7	3.4	1.2	0.19	26.32				0.1	0.1
1004		A004998	SD	21	0.02	0.2	1	265	251.8			25.53	21.88	0.6	2.7	1.2	0.15	22.84				0.1	0.1
1005		A004998	N	20	0.01	0.6	0.6	186	296.3			24.33	15.06	0.5	1.4	2.5	0.06	10.23				0.07	0.1
1006		A004998	N	18	0.01	0.05	0.3	232	235.4			25.63	24.15	0.3	1.9	0.7	0.17	30.56				0.08	0.05
1007		A004998	N	35	0.03	0.05	1.1	240	195.1			25.32	20.35	0.4	2.3	0.8	0.07	48.42				0.1	0.1
1008		A004998	FD	10	0.02	0.05	0.1	181	174			27.07	14.49	0.4	2.5	1.3	0.13	21.73				0.1	0.1
1009		A004998	N	33	0.02	0.05	1.1	196	197.8			28.42	11.57	0.7	1.5	1.6	0.09	22.12				0.09	0.1
1010		A004998	N	34	0.02	0.05	19.9	248	152.5			25.31	16.11	0.5	3.4	1.7	0.16	42.62				0.1	0.1
1011		A004998	N	31	0.02	0.3	1.8	183	374.7			26.25	11.53	0.4	2.5	1	0.18	26.36				0.09	0.1
1013		A004998	N	22	0.04	0.05	2.2	258	204.3			24.66	18.29	0.6	1.6	2	0.38	31.92				0.1	0.2
1014		A004998	N	22	0.02	0.05	1	197	277.8			27.27	15.08	0.6	5.5	0.8	0.15	21.59				0.08	0.1
1015		A004998	N	40	0.02	0.05	1.6	225	187.3			23.87	29.16	0.2	1.3	1.8	0.07	42.84				0.09	0.1
1016		A004998	SD	32	0.02	0.05	1.4	231	250.6			25.44	25.38	0.3	1.2	1.3	0.08	26.09				0.11	0.1
1017		A004998	N	14	0.02	0.05	1.1	178	235.1			26.19	17.46	0.4	1.6	2.5	0.09	36.32				0.12	0.1
1018		A004998	N	32	0.02	0.05	4.8	182	263.5			25.39	14.08	0.4	2	1.9	0.16	38.86				0.11	0.1
1019		A004998	N	13	0.01	0.4	1.7	143	339.4			26.39	13.93	0.2	1.4	0.25	0.13	19.5				0.09	0.1
1020		A004998	FD	29	0.01	0.05	0.3	161	618			25.81	13.15	0.5	1.8	0.8	0.12	30.05				0.1	0.1
1181		A004998	N	13	0.01	0.1	1.8	171	496			26.05	16.48	0.3	2.8	4.6	0.13	12.36				0.09	0.6
1182		A004998	N	17	0.02	0.05	1	159	204.5			25.02	19.95	0.6	3.1	5.6	0.11	20.63				0.11	0.4
1183		A004998	N	15	0.02	0.05	1.1	175	422.9			25.45	19.51	0.2	2.5	8.5	0.05	27.83				0.13	0.3
1184		A004998	SD	18	0.02	0.6	2.7	188	450.5			25.21	12.01	0.3	2.3	7.7	0.06	28.78				0.1	0.2
1185		A004998	N	22	0.02	0.05	4.6	237	580.7			25.33	17.46	0.3	4.4	23	0.13	23.14				0.13	0.2
1186		A004998	N	43	0.03	1	13.4	156	388.2			24.82	18.21	0.6	4.1	46.9	0.14	35.71				0.16	0.3
1187		A004998	N	35	0.04	0.1	1.2	189	287.9			23.34	14.75	0.6	3.1	5.3	0.72	32.2				0.14	0.3
1188		A004998	N	13	0.01	0.5	1.1	170	292.8			24.74	22.51	0.2	1.7	4	0.12	28.32				0.13	0.2
1189		A004998	N	23	0.02	0.05	5.8	224	224.8			23.2	35.58	0.3	2	4.1	0.1	39.64				0.13	0.2
2001		A004998	N	49	0.06	0.2	12.5	172	504.3			24.62	18.1	1.8	2.2	7.6	0.13	62.31				0.21	0.3
2002		A004998	N	58	0.07	0.2	29.9	230	354.8			25.98	26.61	1.2	2.5	9.3	0.14	77.87				0.1	0.2
2003		A004998	N	73	0.06	0.05	18.1	283	569.8			24.24	8.09	1.3	2.3	8.6	0.09	118.86				0.01	0.2
2004		A004998	SD	28	0.06	0.05	13.8	209	184.6			27.46	14.57	1.6	3.3	4	0.07	60.76				0.005	0.2
2005		A004998	N	43	0.06	0.05	13.9	280	183.9			25.84	30.31	1.9	3.3	5	0.1	93.93				0.11	0.3
2006		A004998	N	102	0.06	0.05	7.9	236	209.1			23.42	20.46	1.6	3.2	2.9	0.09	112.37				0.02	0.2

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
2007		A004998	N	59	0.06	0.05	10.9	222	272			25.09	18.55	1	1.3	3.9	0.06	90.36				0.005	0.2
2008		A004998	FD	36	0.03	0.05	19.6	218	328.6			24.91	23.18	1.2	3.3	2.2	0.06	84.69				0.005	0.2
2009		A004998	N	58	0.05	0.5	13.4	179	297.6			26.35	19.96	1.5	7.1	3.3	0.06	108.11				0.005	0.2
2010		A004998	N	48	0.02	0.05	7.3	182	201.7			23	14.93	1	3.8	2.8	0.09	121.22				0.005	0.2
2011		A004998	N	52	0.03	0.05	8.6	192	318.4			20.33	18.34	1.1	9.2	2.6	0.12	121.68				0.005	0.2
2013		A004998	N	27	0.08	0.05	24.1	182	459.3			22.95	23.04	1	3.1	9	0.11	83.28				0.05	0.4
2014		A004998	N	47	0.03	0.5	6.8	132	205.5			25.15	13.67	1.4	3.9	1.6	0.09	64.21				0.005	0.2
2015		A004998	N	45	0.04	1.1	9.5	135	166.3			23.66	26.5	0.7	2.7	7.6	0.05	68.86				0.01	0.2
2016		A004998	SD	115	0.02	0.9	19.6	149	181.3			23.01	22.5	0.6	3.2	7.1	0.04	118.95				0.11	0.2
2017		A004998	N	111	0.03	0.7	3.9	115	250.1			23.24	18.63	0.8	2.2	5.2	0.06	112.18				0.03	0.2
2018		A004998	N	60	0.03	1	3.2	145	460.1			23.11	16.42	1	3.3	14.5	0.1	126.76				0.05	0.2
2019		A004998	N	62	0.03	1	2.4	107	406.2			23.98	15.11	1.4	4.6	3.3	0.09	96.91				0.04	0.2
2020		A004998	FD	58	0.04	1.4	9.4	127	310.4			23.46	21.42	2	5.2	5.4	0.12	97.26				0.06	0.3
2181		A004998	N	30	0.02	1.2	12	130	483.5			22.4	17.38	0.6	2.9	1.1	0.09	112				0.04	0.2
2182		A004998	N	82	0.05	1.5	14.5	183	199.3			19.69	26.34	2.6	7.8	5.1	0.13	146.79				0.08	0.3
2183		A004998	N	50	0.04	1.7	12	143	287.4			24.32	33.81	0.6	2	3.6	0.08	121.5				0.07	0.2
2184		A004998	SD	28	0.04	2.7	10.5	109	257.4			25.92	40.19	0.6	2	2.9	0.07	92.08				0.06	0.2
2185		A004998	N	15	0.04	2.6	6	106	489.9			25.01	20.11	1	2.1	4.6	0.07	72.18				0.04	0.2
2186		A004998	N	28	0.03	2.2	11.7	99	215.3			23.27	16.09	1.2	2.8	10.3	0.1	87.76				0.06	0.2
2187		A004998	N	42	0.03	2.4	4.7	120	399.1			23.32	21.25	1.2	3.9	2.6	0.08	145.44				0.07	0.2
2188		A004998	N	54	0.03	2.7	11.2	122	274.4			23.41	22.97	1.4	5.1	8.9	0.06	110.8				0.05	0.2
2189		A004998	N	45	0.04	2.4	15.7	144	229.2			21.78	24.58	1	7.2	5.8	0.06	137.03				0.08	0.2
3045		A004998	N	14	0.04	2	1.1	97	299			19.05	0.16	0.5	0.2	4	0.3	25.7				0.08	0.3
3046		A004998	N	64	0.02	2.3	0.2	201	71.1			20.24	0.06	0.3	0.1	2.5	0.22	9.27				0.04	0.3
3047		A004998	N	49	0.03	1.3	1.2	410	97.7			23.44	0.14	0.4	0.05	3.8	0.14	15.7				0.1	0.3
3049		A004998	N	101	0.04	0.5	2.3	565	94.4			19.91	0.26	0.4	0.1	4.7	0.12	24.2				0.11	0.4
3050		A004998	N	193	0.05	0.05	3.2	314	130.4			20.56	0.62	1.2	0.4	6.9	0.89	62.72				0.11	0.7
3051		A004998	N	723	0.09	0.7	4.1	633	132.5			19	0.69	1.1	0.5	11.1	0.61	43.2				0.23	1
3052		A004998	SD	684	0.1	0.7	4.2	548	123.1			21.13	0.58	1	0.4	12.8	0.43	37.42				0.21	1
3053		A004998	N	241	0.07	0.7	2.1	486	251			20.95	0.41	0.6	0.3	6.2	0.45	30.21				0.18	0.9
3054		A004998	N	108	0.03	1	2.5	216	134.1			20.73	0.36	0.4	0.4	3.5	0.14	23.57				0.13	0.2
3055		A004998	N	44	0.06	0.5	1.8	156	96			19.66	0.45	0.7	0.6	3.2	0.25	28.42				0.16	0.4
3056		A004998	FD	60	0.05	0.6	4.1	140	97.6			18.45	0.51	0.5	0.9	10	0.27	59.96				0.12	0.5
3057		A004998	N	134	0.08	0.4	2.6	266	95.7			18.76	0.94	0.9	2.4	9.9	0.32	41.55				0.11	0.8

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
3058		A004998	N	50	0.04	0.7	2.1	173	108.1			19.76	0.28	0.4	0.5	6.3	0.12	36.92				0.13	0.4
3059		A004998	N	28	0.04	0.3	1.7	189	98.7			22.53	0.3	0.4	0.3	5.9	0.27	34.14				0.11	0.3
3061		A004998	N	52	0.08	0.4	4.2	245	105.3			16.91	0.76	0.8	1.8	12.1	0.28	44.34				0.1	0.5
3062		A004998	N	24	0.04	1.1	1.8	171	121			20.05	0.26	0.4	0.5	7.5	0.07	22.78				0.11	0.3
3063		A004998	N	14	0.04	2	1.7	114	140.4			22.66	0.29	0.3	0.4	3.9	0.14	12.5				0.12	0.3
3064		A004998	SD	14	0.04	1.7	1.1	125	181			23.45	0.37	0.4	0.2	3.1	0.18	13.1				0.11	0.3
3065		A004998	N	17	0.05	1.5	1	272	155.1			19.65	0.29	0.5	0.2	5.3	0.08	12.77				0.12	0.3
3066		A004998	N	32	0.04	1.3	0.7	249	96.8			22.09	0.31	0.3	0.5	4.6	0.13	14.98				0.11	0.3
3067		A004998	N	23	0.06	1.2	0.6	95	127.9			22.41	0.33	0.5	0.7	19.4	0.07	15.11				0.14	0.3
3068		A004998	FD	54	0.05	0.6	0.8	262	122			17.98	0.6	0.5	0.7	17.1	0.18	28.13				0.15	0.4
3142		A004998	N	36	0.14	1	1.1	106	112.7			17.79	0.7	2.6	2	34.5	0.19	28.69				0.21	0.8
3143		A004998	N	41	0.07	0.3	1.5	160	113			19.19	0.3	0.7	0.8	3.2	0.23	29.58				0.13	0.4
3144		A004998	N	18	0.04	0.8	0.7	265	278.2			17.52	0.3	0.5	0.4	7.2	0.09	18.18				0.12	0.3
3145		A004998	N	29	0.04	0.9	0.3	305	166			18.22	0.24	0.3	0.4	5.2	0.12	26.62				0.11	0.3
3146		A004998	N	17	0.06	0.8	1.5	94	96.5			19.96	0.35	0.6	0.6	8	0.13	17.59				0.14	0.3
3147		A004998	N	17	0.03	0.9	1	165	119.6			21.28	0.25	0.4	0.4	1.5	0.07	20.09				0.1	0.3
3148		A004998	FD	25	0.07	0.7	0.4	167	91.5			19.22	0.52	0.6	0.8	7.9	0.21	26.75				0.12	0.4
3149		A004998	SD	26	0.07	0.8	1	176	81			18.92	0.4	0.5	0.9	9.8	0.19	28.82				0.13	0.4
3152		A004998	N	218	0.08	0.05	1	402	86.4			21.14	0.68	0.6	3.3	10.7	0.39	26.62				0.12	0.9
3153		A004998	N	825	0.07	0.05	1.4	273	142.1			22.5	0.35	0.5	0.6	0.25	0.86	24.25				0.13	1
3154		A004998	N	560	0.12	0.05	1.3	283	71			21.47	0.7	1	2.8	9.1	0.81	21.57				0.1	1.6
3155		A004998	N	504	0.1	0.05	0.8	612	83.7			20.71	0.52	0.7	0.3	0.25	0.32	26.51				0.11	1.6
3156		A004998	N	831	0.09	0.05	0.8	363	75.8			19.3	1.68	0.8	1.1	7.7	0.28	32.49				0.15	2.2
3157		A004998	N	925	0.1	0.05	1.9	398	90.7			19.96	1.49	0.7	1.9	0.25	0.41	30.97				0.13	2
3158		A004998	N	911	0.1	0.05	0.7	375	94			20.88	2.47	0.7	1.2	0.25	0.52	27.79				0.13	2.5
3159		A004998	N	640	0.08	0.05	1	325	80.8			19.97	6.04	0.6	3.6	0.25	0.33	34.45				0.12	2.3
3160		A004998	N	403	0.12	0.05	1	439	64.5			19.14	2.34	1	1.8	1.1	0.47	35.13				0.11	2.3
3161		A004998	N	308	0.12	0.05	1	367	69.9			16.71	1.78	1.2	5.4	9.5	0.34	34.87				0.13	2.4
3162		A004998	FD	369	0.09	0.05	0.6	368	87.2			17.64	0.97	0.6	1	0.5	0.67	38.56				0.12	2.4
3163		A004998	SD	358	0.09	0.05	0.5	393	85.8			16.87	0.91	0.7	1.5	0.25	0.74	39.78				0.14	2.5
3166		A004998	N	619	0.09	0.05	0.6	354	94.1			19.75	2.59	0.5	2.7	0.6	0.44	32.82				0.11	2.2
3167		A004998	N	159	0.08	0.05	0.3	209	109.6			21.61	1.07	0.6	0.9	0.25	0.21	22.37				0.14	1.3
3168		A004998	N	21	0.05	0.05	0.5	147	107.9			21.56	0.46	0.7	0.3	0.25	0.06	21.77				0.12	1.1
3169		A004998	N	790	0.06	0.05	2	479	72.9			20.18	1.49	0.5	1	0.9	0.11	34.19				0.12	1.4

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
3170		A004998	N	114	0.08	0.05	0.6	167	90.8			21.14	0.91	0.6	0.6	0.25	0.12	24.72				0.13	1.1
3171		A004998	N	257	0.08	0.05	0.5	226	114.1			19.75	1.63	0.6	1.8	0.7	0.49	35.03				0.12	1.6
3172		A004998	N	64	0.07	0.05	0.4	261	92.3			18.34	0.67	0.7	2	0.25	0.22	25.47				0.11	1.3
3173		A004998	N	209	0.09	0.05	0.9	658	87.3			16.78	2.53	0.8	7.4	0.9	0.38	41.11				0.14	3.2
3174		A004998	N	477	0.09	0.05	0.7	415	68.9			17.58	3.72	0.7	3.7	0.25	0.18	44.01				0.13	2.3
3175		A004998	N	287	0.08	0.05	0.5	599	70.5			17.23	2.5	0.6	0.9	0.9	0.17	37.92				0.13	1.5
3176		A004998	FD	40	0.07	0.05	0.3	211	82.4			22.14	0.8	0.6	0.3	0.25	0.17	22.87				0.13	1.1
3177		A004998	SD	132	0.06	0.05	0.4	215	80.1			22.13	0.84	0.5	0.4	0.25	0.15	22.84				0.13	1
3180		A004998	N	16	0.06	0.05	0.4	172	88.6			19.96	0.36	0.5	0.2	0.25	0.08	21.92				0.12	0.9
3194		A004998	N	390	0.08	0.05	0.9	492	169.3			18.47	0.49	0.6	1.3	0.5	0.7	33.49				0.13	2.3
3195		A004998	N	164	0.07	0.05	1	257	79.6			21.61	0.81	0.4	3.8	0.6	0.14	23.39				0.12	1.9
3196		A004998	N	397	0.06	0.05	0.6	394	57.3			20.15	0.69	0.5	0.1	0.25	0.09	18.31				0.14	2
3197		A004998	N	480	0.07	0.05	0.3	509	85.3			20.72	0.55	0.6	0.8	0.25	0.23	22.68				0.13	2.1
3198		A004998	N	776	0.11	0.4	0.6	204	74.6			21.37	0.49	0.9	2.8	0.25	0.92	16.27				0.14	2.9
4001	1492	A004660	N	176	0.48	3.8	2	21	243.1	0.4	0.09	2.46	1.02	12.5	4.6	9.1	0.39	16.14	0.95	0.45	0.3	0.88	1.5
4002	1493	A004660	N	78	0.07	1	6.1	52	149	0.1	0.03	3.03	0.43	1.5	1.4	1.5	0.08	7.71	0.15	0.07	0.06	0.56	0.2
4003	1494	A004660	N	87	0.12	1.8	< .2	45	160.7	0.1	0.03	2.95	0.64	3.4	2.4	2.5	0.14	10.08	0.34	0.15	0.09	0.64	0.4
4004	1495	A004660	N	131	0.31	2.8	2.6	38	181	0.4	0.07	2.84	0.76	8.6	3.5	6.2	0.35	13.95	0.86	0.41	0.22	0.9	1
4005	1496	A004660	N	53	0.07	2.6	0.8	44	160.7	0.1	0.02	3.06	0.63	1.6	1.9	1.7	0.04	8.83	0.21	0.11	0.07	0.56	0.2
4006	1497	A004660	N	107	0.28	5	0.8	51	212.1	0.3	0.07	2.6	1.33	9.3	4.5	5.2	0.36	22.99	0.89	0.44	0.27	0.72	0.9
4007	1498	A004660	N	94	0.12	3.2	0.7	35	224.2	0.1	0.03	2.32	0.87	3.4	2.4	3.8	0.12	9.5	0.44	0.21	0.13	1.25	0.3
4008	1499	A004660	N	132	0.3	6.4	< .2	31	241.4	0.3	0.06	2.59	1.29	8.6	4.3	6.3	0.28	14.46	0.82	0.44	0.23	0.94	1
4009	1500	A004660	N	64	0.05	1	0.3	62	147.8	< .1	< .02	2.98	0.36	1	1.5	1	0.03	6.85	0.1	0.06	0.04	0.5	0.1
4010	1501	A004660	N	68	0.08	0.7	0.9	30	107.8	0.1	0.02	2.88	0.33	1.9	1.1	1.2	0.1	6.47	0.19	0.09	0.06	0.26	0.2
4011	1502	A004660	N	63	0.19	3.8	1.4	103	115.8	0.3	0.04	3.3	0.36	6	2.3	4.2	0.26	6.36	0.56	0.25	0.16	1.34	0.6
4011	1503	A004660	LD	64	0.19	3.9	0.9	103	116.4	0.2	0.04	3.24	0.3	6.3	2.3	3.6	0.28	6.59	0.51	0.26	0.18	1.31	0.6
4013	1505	A004660	N	50	0.11	1.3	0.8	72	109.9	0.1	0.03	2.97	0.28	3.2	1.8	1.6	0.15	6.1	0.32	0.15	0.09	0.44	0.3
4014	1506	A004660	N	81	0.14	3.4	1.5	59	124	0.2	0.03	4.45	0.5	3.9	3.3	3	0.18	9.18	0.34	0.17	0.11	1.71	0.4
4015	1507	A004660	N	112	0.28	13.3	1.7	69	67	0.3	0.06	1.92	0.47	7.7	5.9	5.9	0.28	10.92	0.73	0.31	0.18	4.14	0.9
4016	1508	A004660	N	73	0.14	3.5	0.9	68	74.1	0.2	0.02	2.55	0.33	3.8	2	3.2	0.17	7.43	0.31	0.16	0.09	3.12	0.4
4017	1509	A004660	N	122	0.29	8.1	0.7	103	174.6	0.3	0.04	6.09	0.77	7.2	4.9	5.2	0.29	11.95	0.73	0.33	0.19	1.9	0.8
4018	1510	A004660	N	130	0.29	8.6	0.7	113	177.5	0.3	0.05	6.11	0.83	7.4	5	5.4	0.31	13.15	0.69	0.36	0.21	1.91	0.9
4019	1511	A004660	N	46	0.08	2.4	1.2	90	137.7	0.1	0.02	3.76	0.33	2.6	2	1.4	0.11	6.95	0.25	0.1	0.07	1.02	0.3
4020	1512	A004660	N	90	0.05	1.2	0.7	119	112.7	0.1	< .02	2.71	0.38	1	1.2	0.7	0.05	7.19	0.1	0.05	0.04	2.14	0.1

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
4021	1513	A004660	N	59	0.07	1	1	148	161.4	0.1	< .02	3.2	0.37	1.3	1.6	1.1	0.08	6.54	0.16	0.08	0.05	0.79	0.2
4022	1514	A004660	N	56	0.06	1.2	1.2	152	105.2	< .1	< .02	3.07	0.3	1.2	1.3	1.5	0.06	6.82	0.11	0.05	0.03	0.47	0.2
4023	1515	A004660	N	44	0.06	5.2	0.6	84	94.7	< .1	< .02	3.5	0.29	1.5	1.8	1.4	0.08	5.8	0.14	0.07	0.05	0.4	0.2
4023	1516	A004660	LD	39	0.08	2.5	0.6	106	92	0.1	< .02	2.97	0.29	2	1.1	1.8	0.13	5.03	0.16	0.09	0.06	0.44	0.2
4025	1518	A004660	N	77	0.23	3.3	1.4	88	120.3	0.2	0.08	2.6	0.64	6.6	2.4	3.8	0.36	11.6	0.66	0.3	0.19	0.9	0.7
4026	1519	A004660	N	85	0.27	7.3	1.2	83	78.6	0.2	0.07	2.41	0.65	8.8	2.7	5.7	0.4	13.12	0.86	0.41	0.22	1.27	1
5001	1464	A004659	N	126	0.59	5.7	1.4	8	333.7	0.5	0.15	2.16	0.34	22.7	7.5	13	0.4	18.4	2.03	1.05	0.57	1.05	2.3
5002	1465	A004659	N	205	0.67	10.5	1.5	16	355.5	0.4	0.14	4.3	0.77	20.3	8.8	15.5	0.38	23.14	1.82	0.96	0.57	1.35	2.4
5003	1466	A004659	N	156	0.58	7.1	1.8	13	288.2	0.4	0.15	2.15	0.68	22.1	8.9	13.8	0.37	21.75	2.05	1.04	0.58	1.65	2.2
5004	1467	A004659	N	132	0.5	7.2	2.4	13	281.9	0.4	0.13	2.76	0.56	19.8	7.8	11.5	0.3	18.3	1.84	0.92	0.55	1.6	1.9
5005	1468	A004659	N	138	0.79	9.4	2.9	9	349.9	0.5	0.18	1.34	0.67	25.3	11.3	17.8	0.72	22.75	2.35	1.06	0.7	1.61	3
5006	1469	A004659	N	177	0.93	10.4	2.1	12	466	0.9	0.2	0.7	1.06	32.7	9.8	19.4	0.64	28.8	2.96	1.32	0.83	1.9	3.4
5007	1470	A004659	N	203	1.03	4.9	2.8	9	822.5	0.7	0.18	0.72	0.57	29.8	7.7	19.2	0.61	23.14	2.56	1.19	0.81	1.45	3.7
5008	1471	A004659	N	196	0.99	7.9	2	11	552.5	0.7	0.17	2.03	1.38	26.9	9.9	19.5	0.53	26.86	2.42	1.08	0.73	1.57	3.4
5009	1472	A004659	N	156	0.85	9.7	2.3	11	315.1	0.7	0.23	2.28	0.32	25.3	9.1	18.6	0.81	29.75	2.49	1.18	0.68	4.71	3.2
5010	1473	A004659	N	124	0.62	5.8	2	9	257.6	0.4	0.15	2.48	0.35	22.4	7.4	13.6	0.6	19.3	2.06	0.94	0.6	1.43	2.3
5011	1474	A004659	N	121	0.69	5.8	2.4	11	263	0.5	0.16	2.48	0.39	23.2	7.4	14	0.67	19.47	2.17	0.91	0.62	1.45	2.5
5011	1475	A004659	LD	133	0.89	10.2	2.3	26	249.6	0.4	0.18	2.46	0.32	22.3	8	17.9	0.78	17.43	2.09	0.9	0.6	2.21	3.1
5013	1477	A004659	N	129	0.79	9.2	2.1	22	299.7	0.5	0.16	2.44	0.34	22.8	8.7	16.8	0.67	20.79	2.17	1.05	0.61	1.97	2.9
5014	1478	A004659	N	125	0.63	4.7	2.6	16	180.4	0.5	0.15	3.51	0.28	21	8.1	14.9	0.54	18.74	2.11	0.94	0.6	1.68	2.3
5015	1479	A004659	N	147	0.77	11.2	1.5	28	118.2	0.6	0.14	4.4	0.5	18	8.7	17.7	0.41	22.08	1.58	0.74	0.45	3.47	2.7
5016	1480	A004659	N	116	0.85	10.5	1.2	23	146.5	0.5	0.13	3.66	0.39	19.9	8.8	17.8	0.47	20.03	1.89	0.8	0.54	3.69	3
5017	1481	A004659	N	159	0.82	6.7	1.7	31	330.5	0.5	0.14	5.75	0.7	20.6	7.6	16.4	0.64	21.99	1.92	0.97	0.55	2.02	2.9
5018	1482	A004659	N	140	0.69	7.4	107.7	16	229.7	0.5	0.15	3.94	0.37	22.3	9.4	15.7	0.57	22.7	2.12	0.98	0.57	2.35	2.5
5019	1483	A004659	N	134	0.85	11.6	1.1	17	248.3	0.4	0.18	2.38	0.39	23.7	9.5	17.3	0.87	22.49	2.28	1.01	0.62	2.04	3.1
5020	1484	A004659	N	124	0.82	7.1	1.5	15	272.6	0.6	0.17	1.87	0.35	24.1	8.2	17.7	0.88	19.83	2.17	1.01	0.68	1.68	3
5021	1485	A004659	N	124	0.69	2.2	1.5	36	217.4	0.5	0.14	1.56	0.4	22.2	5	15.1	0.69	18.45	1.93	0.83	0.57	1.17	2.7
5022	1486	A004659	N	136	0.67	8.8	2.2	18	192	0.5	0.17	2.34	0.52	21.8	8.2	17.2	0.7	22.17	2.14	1.02	0.62	1.1	2.5
5023	1487	A004659	N	144	0.93	7.3	1.3	12	216.7	0.6	0.22	1.31	0.41	29.3	7.7	19.9	1.05	23.01	2.57	1.17	0.73	1.49	3.5
5023	1488	A004659	LD	134	0.95	7.2	1.8	13	212.4	0.6	0.21	1.3	0.38	29.1	7.6	20.4	1.07	22.79	2.5	1.1	0.75	1.48	3.5
5025	1490	A004659	N	117	0.78	7.5	1.3	19	91.1	0.4	0.15	1.97	0.5	20.1	7.4	17.8	0.68	18.6	2.02	0.98	0.55	2.61	2.8
5026	1491	A004659	N	130	0.66	26.5	1.6	30	168.9	0.5	0.17	1.77	0.34	22	3.7	14.2	0.59	21.29	1.97	0.87	0.63	1.48	2.6
6001	6001	A005103	N	438	0.32	0.6	0.5	5	327.2	0.2	0.11	0.96	0.83	10.8	8.1	5.6	0.35	16.32				0.54	1.3
6002	6002	A005103	N	1058	0.49	0.7	0.7	6	570.6	0.6	0.13	1.32	0.9	21.8	6.4	6.4	0.24	15.92				0.87	1.5

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
6003	6003	A005103	N	865	0.29	0.3	0.6	8	417.9	0.1	0.12	1.17	1.27	10.3	15.1	5.4	0.35	15.39				0.48	1.1
6004	6004	A005103	SD	756	0.26	0.05	1	9	393.4	0.1	0.1	1.23	1.03	8.5	10.2	4.5	0.33	11.42				0.4	1
6005	6005	A005103	N	912	0.25	0.5	0.1	9	477.6	0.2	0.09	1.1	2.21	9	7.2	4.9	0.4	18.05				0.41	1.1
6006	6006	A005103	N	1012	0.22	0.1	0.2	9	448.5	0.2	0.09	1.64	2.24	5.5	4.6	4.5	0.2	12.81				0.34	0.8
6007	6007	A005103	N	811	0.67	0.8	1.6	14	484.6	0.5	0.15	1.72	1.98	24.9	11.8	10.7	0.48	20.25				1.01	2.2
6008	6008	A005103	FD	853	0.33	0.6	0.3	4	567.9	0.2	0.11	0.84	0.68	11.6	9.4	6.3	0.32	11.29				0.49	1.3
6009	6009	A005103	N	524	0.21	0.1	0.1	11	434.6	0.1	0.08	1.63	1.79	6.6	6.1	4.6	0.3	13.27				0.31	0.9
6010	6010	A005103	N	1055	0.33	0.1	1.9	8	472.1	0.1	0.07	0.69	0.94	10.3	0.8	6.1	0.42	21.79				0.26	1.6
6011	6011	A005103	N	816	0.2	0.2	0.2	7	472.1	0.1	0.09	0.99	1.36	7.2	9.5	4.3	0.3	13.85				0.31	0.9
6013	6013	A005103	N	436	0.17	0.05	248.5	15	282.3	0.05	0.08	1.75	1.67	2.6	1.6	2.9	0.32	10.57				0.24	0.6
6014	6014	A005103	N	573	0.19	0.05	0.4	14	384.8	0.1	0.07	1.89	1.45	5.2	5.3	3.4	0.32	11.5				0.28	0.7
6015	6015	A005103	N	1955	0.78	1.5	0.7	10	839.8	0.4	0.18	1.36	3.98	34.1	24.3	9.7	0.5	30.29				1.45	2.5
6016	6016	A005103	SD	2054	0.64	1.5	0.7	8	794.7	0.5	0.14	1.51	4.29	27.9	18.6	8.9	0.44	34.18				1.21	2.1
6017	6017	A005103	N	745	0.26	0.4	0.5	15	349.7	0.2	0.09	1.65	0.57	11.9	5.4	5	0.3	10.4				0.42	0.9
6018	6018	A005103	N	475	0.3	0.2	0.1	13	414.2	0.2	0.09	1.77	0.81	9.5	7.2	4.5	0.36	10.26				0.42	1
6019	6019	A005103	N	531	0.15	0.05	0.1	14	297.3	0.1	0.06	1.7	1.5	4	3.9	4.1	0.36	12.06				0.25	0.7
6020	6020	A005103	FD	417	0.31	0.1	0.1	20	448	0.1	0.09	2.16	1.9	6.6	6.6	5.5	0.43	15.82				0.47	1.2
6021	6021	A005103	N	290	0.37	0.5	0.3	8	565	0.1	0.1	0.99	1.2	11.9	8.3	7.6	0.31	21.01				0.57	1.5
6022	6022	A005103	N	214	0.34	0.2	16.3	15	484.9	0.1	0.09	1.9	1.03	10.8	5.7	11.3	0.47	12.48				0.63	1.2
6023	6023	A005103	N	258	0.46	0.5	0.1	10	632.7	0.3	0.11	1.39	0.83	14.8	8.2	8.8	0.43	19.6				0.72	1.6
6025	6025	A005103	N	480	0.36	0.1	0.9	15	632.7	0.2	0.09	1.97	1.02	11.4	5.4	6.9	0.32	14.6				0.59	1.2
6026	6026	A005103	N	984	0.93	1.5	0.2	10	704.8	0.7	0.16	1.5	2.18	31.5	8.5	14.5	0.69	31.72				1.41	3.1
6027	6027	A005103	N	621	0.52	0.3	0.1	14	618.2	0.2	0.08	2.15	0.93	23.6	2.7	6	0.27	17.06				0.59	1.3
6028	6028	A005103	SD	834	0.45	0.2	0.2	21	648.7	0.3	0.1	2.33	1.57	18.7	3.3	6	0.29	21.2				0.54	1.3
6029	6029	A005103	N	776	0.46	0.4	0.1	16	728	0.3	0.09	2.57	2.54	19	3.9	6.1	0.3	25.78				0.57	1.2
6030	6030	A005103	N	103	0.18	0.7	8.9	37	306.5	0.2	0.03	4.78	1.14	4.1	1.5	3.3	0.14	10.62				0.31	0.5
6031	6031	A005103	N	122	0.94	5.1	1.4	13	319	0.6	0.18	1.6	0.7	27.9	6.9	17.5	0.68	16.33				1.86	3.2
6032	6032	A005103	FD	143	1.11	4.4	2.5	11	337.9	0.8	0.18	1.23	1.03	28.5	7.6	18.3	0.67	14.44				1.89	3.8
6033	6033	A005103	N	115	0.23	0.2	0.1	25	229.3	0.1	0.06	3.14	0.97	5.1	2.5	4.4	0.25	11.23				0.38	0.8
6034	6034	A005103	N	100	0.21	0.5	0.2	19	294.3	0.05	0.06	2.33	0.7	6.3	1.2	4.1	0.22	11.81				0.46	0.7
6035	6035	A005103	N	116	0.15	0.05	0.5	28	297.3	0.2	0.07	2.59	1.21	3.3	1.5	3.7	0.27	11.95				0.27	0.5
6036	6036	A005103	LD	379	0.36	0.1	1	14	504.5	0.2	0.09	1.81	1.71	9.6	4.8	7.2	0.35	13.68				0.64	1.2
6037	6037	A005103	N	467	0.34	0.1	0.5	17	514.8	0.3	0.08	2.01	1.91	8.8	4.7	6.8	0.34	14.33				0.58	1.1
6038	6038	A005103	N	289	0.09	0.05	1	26	361.9	0.05	0.04	2.86	0.98	1.9	1.2	1.7	0.11	11.65				0.15	0.3

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
6039	6039	A005103	N	696	0.43	0.4	0.5	18	677.8	0.4	0.09	2.18	1.52	13	5.9	8.3	0.35	18.18				0.64	1.2
6040	6040	A005103	SD	661	0.34	0.3	0.8	23	617.3	0.2	0.08	2.42	1.57	11.4	5.3	6.7	0.33	19.18				0.5	1.1
6041	6041	A005103	N	368	0.31	0.6	0.6	29	520.8	0.2	0.06	3.47	2.09	9.7	4.2	4.6	0.17	14.2				0.37	0.7
6042	6042	A005103	N	445	0.34	1.5	0.3	20	195.1	0.2	0.1	1.73	1.71	6.2	3.9	8.2	0.39	13.36				1.14	1.3
6043	6043	A005103	N	389	0.17	0.3	0.7	16	484.2	0.05	0.07	2.51	1.65	6.1	3.5	4.3	0.24	11.02				0.32	0.6
6044	6044	A005103	FD	642	0.12	0.05	2.4	26	383.6	0.1	0.05	2.65	1.54	3.9	2.6	1.8	0.19	10.29				0.2	0.4
6045	6045	A005103	N	48	0.39	1.7	2.2	34	163.1	0.2	0.05	3.98	2.05	5.3	9.3	6.2	0.24	5.75				0.51	1.4
6046	6046	A005103	N	237	0.74	2.2	1.1	17	144.2	0.6	0.12	4.65	2.53	20.9	14.5	16.2	0.35	18.15				1.18	1.6
6047	6047	A005103	N	82	0.25	2	0.9	33	131.1	0.2	0.05	5.44	2.03	5.6	4.6	6.9	0.14	14.75				0.55	0.7
6049	6049	A005103	N	91	0.36	4.9	1.1	26	177.2	0.2	0.1	3.53	1.74	8	13.3	12.5	0.24	8.33				1.51	1.2
6050	6050	A005103	N	63	0.28	0.4	0.6	19	134.3	0.2	0.04	4.39	1.22	5.3	3.4	15	0.11	8.3				0.38	0.6
6051	6051	A005103	N	59	0.41	1.3	0.1	4	208.4	0.4	0.09	1.01	0.72	7.3	1.4	5.8	0.25	6.49				0.75	0.9
6052	6052	A005103	SD	54	0.45	1.3	0.1	5	216.8	0.4	0.09	0.99	0.5	7.4	1.2	5.6	0.37	6.02				0.78	1.2
6053	6053	A005103	N	61	0.19	1.1	0.3	36	143.3	0.1	0.03	5.8	0.85	2.6	1.9	3.1	0.07	8.11				0.41	0.4
6054	6054	A005103	N	274	0.52	1	1.2	13	126.1	0.7	0.14	2.88	2.47	18.4	4	9.5	0.4	25.73				0.89	1.5
6055	6055	A005103	N	309	0.34	0.6	0.7	7	568.9	0.3	0.12	0.65	2.34	11	12.8	9.7	0.75	21.97				0.65	1.6
6056	6056	A005103	FD	347	0.16	0.2	0.7	17	333.2	0.2	0.08	2.09	1.45	4.3	5.9	4.1	0.44	9.42				0.24	0.7
6057	6057	A005103	N	981	0.21	0.6	0.4	9	537.5	0.2	0.11	1.29	1.31	7	14.9	4	0.32	13.45				0.38	0.9
6058	6058	A005103	N	304	0.35	0.7	0.3	8	477	0.2	0.09	1.22	2.13	8.8	10.8	7	0.57	15.1				0.59	1.3
6059	6059	A005103	N	268	0.33	1.3	0.3	9	184.6	0.3	0.16	1.81	0.72	8.3	4.8	5.1	0.34	18.34				1.1	1
6060	6060	A005103	LD	286	0.36	1.7	0.1	13	195.1	0.4	0.19	1.92	0.86	9.7	5.3	4.4	0.4	21.65				1.2	1.1
6061	6061	A005103	N	246	0.18	0.6	0.7	12	97.2	0.05	0.08	0.99	0.94	3.3	3.4	3.2	0.29	8.1				0.29	0.7
6062	6062	A005103	N	252	1.19	2.6	0.7	17	320.3	1	0.19	2.05	3.24	36	19.6	15.9	0.62	21.32				1.5	2.5
6063	6063	A005103	N	206	0.23	0.3	0.6	19	227.9	0.1	0.08	2.74	1.75	5.2	10.8	4.8	0.39	18.46				0.37	0.7
6064	6064	A005103	SD	162	0.19	0.4	1.3	20	176.6	0.2	0.06	2.73	1.43	4.5	9.4	4.2	0.34	11.79				0.33	0.7
6065	6065	A005103	N	301	0.37	0.9	1	20	311	0.3	0.1	2.87	1.5	22.9	12.6	7.7	0.24	17.41				0.53	1
6066	6066	A005103	N	344	0.31	0.6	0.5	7	532.3	0.2	0.11	1.05	1.83	9.8	20.4	9.1	0.35	15.33				0.48	1.1
6067	6067	A005103	N	535	0.43	0.6	0.4	11	372.4	0.4	0.11	1.83	0.63	16	17.4	11.1	0.37	12.14				0.52	1.2
6068	6068	A005103	FD	527	0.59	1.4	2.3	6	311.5	0.5	0.11	0.95	0.8	19.8	12.2	24.8	0.4	9.87				0.84	2
6069	6069	A005103	N	682	0.53	0.7	0.5	11	473	0.3	0.1	1.83	2.59	23.2	27.6	12.3	0.46	12.01				0.64	1.9
6070	6070	A005103	N	649	1.31	3.1	0.5	4	564.3	1.1	0.15	0.77	3.25	32.6	29.5	21.7	0.62	20.11				1.74	5.4
6071	6071	A005103	N	398	0.57	0.9	0.6	8	369.9	0.5	0.09	1.89	1.97	16.7	14.8	13.2	0.34	13.29				0.73	1.9
6072	6072	A005103	N	182	0.28	0.4	1	17	376.9	0.2	0.06	2.36	2.32	6	11.7	12	0.27	13.54				0.44	1
6073	6073	A005103	N	563	0.33	0.3	0.7	13	562.2	0.2	0.07	2.73	2.71	7.3	11.4	6.8	0.26	19.17				0.39	1

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
6074	6074	A005103	N	227	0.34	0.8	0.5	11	503.8	0.2	0.06	1.72	1.77	6.3	5.4	7.6	0.27	10.71				0.68	1.4
6075	6075	A005103	N	279	0.27	0.3	0.2	12	581.6	0.05	0.06	1.93	1.49	5.8	5.8	6.5	0.28	9.36				0.42	1.1
6076	6076	A005103	N	234	0.33	0.5	0.4	13	595.1	0.1	0.07	1.92	1.3	5.5	5	8.3	0.29	12.59				0.59	1.5
6077	6077	A005103	N	172	0.45	0.8	0.6	16	642.7	0.3	0.1	2	1.07	7	5	11.4	0.31	11.15				0.92	1.9
6078	6078	A005103	FD	206	0.62	0.7	0.1	7	716.6	0.3	0.1	1.09	0.89	10.1	7.3	15.4	0.43	9.32				1.45	2.6
6079	6079	A005103	SD	244	0.55	0.8	0.5	8	964.3	0.4	0.12	1.41	1.63	10.9	8.6	15.1	0.33	17.33				1.32	2.4
6082	6082	A005103	N	157	0.7	0.4	0.6	10	712.7	0.2	0.1	1.5	0.52	9.6	16.7	36.2	0.61	15.81				1.31	2.8
6083	6083	A005103	N	145	0.51	0.2	0.3	11	627.4	0.2	0.08	1.6	0.4	8.3	11.1	37.2	0.37	13.13				0.9	1.7
6084	6084	A005103	N	173	0.89	0.4	0.6	9	667.9	0.4	0.1	1.48	0.4	15.4	16.7	66.6	0.47	16.37				1.53	2.7
6085	6085	A005103	N	92	0.33	0.1	0.5	12	473.4	0.1	0.06	1.74	0.66	5.5	7.1	23.1	0.24	12.17				0.62	1.1
6086	6086	A005103	N	274	1.15	2.4	0.6	31	598.1	0.5	0.09	2.84	1.04	20.2	17.7	70.9	0.57	56.03				1.83	3.3
6087	6087	A005103	N	151	0.47	1.9	0.6	23	453.2	0.3	0.07	2.62	0.75	13.9	5.4	16.3	0.33	16.85				0.77	1.3
6088	6088	A005103	N	251	0.7	1.4	0.6	9	636.4	0.4	0.11	1.27	0.43	14.6	23	19.8	0.49	11.2				1.06	2.5
6089	6089	A005103	N	303	0.64	0.9	0.7	13	699.1	0.4	0.09	1.76	0.61	22.6	16.4	22.8	0.4	18.02				0.97	2
6090	6090	A005103	N	187	0.76	0.9	0.7	9	610.6	0.4	0.1	1.49	0.47	13	12.4	40.4	0.44	16.3				1.3	2.6
6091	6091	A005103	N	77	1.81	0.5	0.9	8	481.7	0.5	0.1	1.36	0.27	94.8	46.7	168.1	0.61	35.96				3.61	5.2
6092	6092	A005103	FD	83	0.43	0.4	0.1	16	492	0.3	0.05	1.96	0.27	21.8	8.5	29.1	0.36	13.84				0.76	1.2
6093	6093	A005103	SD	88	0.64	0.05	0.1	16	458.1	0.3	0.06	1.91	0.28	29.4	12.9	46.2	0.33	16.91				1.14	1.7
6096	6096	A005103	N	102	0.33	0.05	0.1	22	455.4	0.2	0.05	2.33	0.62	13.3	5.4	22	0.29	14.54				0.58	1
6097	6097	A005103	N	395	1.11	0.6	0.1	11	619.8	0.5	0.1	1.78	0.73	48.3	19.8	66.9	0.57	30.86				1.76	3.1
6098	6098	A005103	N	103	0.3	0.1	0.1	25	430.9	0.1	0.04	2.43	0.81	11	5.3	16.3	0.27	16.49				0.51	1
6099	6099	A005103	N	139	0.71	0.5	1.1	7	473.7	0.3	0.09	0.92	0.51	21.7	12.2	37.4	0.53	13.56				1.26	2.4
6100	6100	A005103	N	354	0.58	0.7	9.9	9	448.5	0.3	0.08	1.25	0.74	19.1	9	24.7	0.42	13.93				1	1.9
6101	6101	A005103	N	452	0.74	0.5	0.3	8	484	0.4	0.08	1.37	1.03	25.3	23.3	24.9	0.37	13.24				1.01	2.5
6102	6102	A005103	N	1180	0.53	0.4	0.5	14	468.9	0.4	0.07	2.2	1.73	15.3	17.5	8.3	0.28	16.88				0.53	1.5
6103	6103	A005103	N	122	0.76	0.7	0.1	10	1574.4	0.3	0.11	1.82	0.55	20	8.6	22.7	0.57	15.63				1.06	2.7
6104	6104	A005103	N	215	0.75	0.6	0.3	7	664.2	0.4	0.1	1.25	0.47	26	14.4	44.8	0.56	17.81				1.27	2.3
6105	6105	A005103	N	138	0.35	2.1	0.9	9	335	0.3	0.09	1.33	0.28	11.2	6.5	12.9	0.29	10.79				0.72	1.2
6106	6106	A005103	FD	238	0.34	0.4	0.5	7	522.6	0.3	0.08	1.41	0.58	6	12.9	8	0.36	8.45				0.53	1.2
6107	6107	A005103	SD	185	0.29	0.3	0.3	10	487.1	0.2	0.06	1.7	0.63	5.2	10.9	8.5	0.39	8.76				0.48	0.9
6110	6110	A005103	N	133	0.32	0.05	0.2	16	686.3	0.1	0.06	1.86	0.57	6.4	6.1	23.3	0.28	9.76				0.63	1.2
6111	6111	A005103	N	563	1.05	0.2	0.1	10	868.3	0.5	0.1	1.55	0.66	25.1	17.3	70.6	0.49	23.31				1.78	3.2
6112	6112	A005103	N	230	0.45	0.6	0.2	6	532.2	0.3	0.06	1.39	0.95	10.8	10.3	21.1	0.25	11.74				0.78	1.4
6113	6113	A005103	N	212	0.59	0.05	0.1	8	708.8	0.3	0.07	1.77	0.71	10.9	13.6	42.1	0.21	16.91				0.99	1.7

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
6114	6114	A005103	N	160	0.41	0.1	0.2	11	656.2	0.3	0.05	1.83	0.61	5.6	8	23.3	0.22	12.07				0.71	1.3
6115	6115	A005103	N	98	0.26	0.05	0.1	15	584.3	0.2	0.04	2.45	0.65	4.7	4.6	14	0.18	8.33				0.46	0.8
6116	6116	A005103	N	235	0.43	1	0.1	27	609.3	0.2	0.05	2.72	0.85	17.7	6.9	23.8	0.21	17.09				0.72	1.2
6117	6117	A005103	N	271	0.44	0.3	0.9	14	578.4	0.2	0.08	2.17	1.19	6.9	6.1	7.6	0.25	11.86				0.77	1.6
6118	6118	A005103	N	489	0.7	1.9	0.7	5	397.1	0.4	0.12	0.6	0.53	12.8	9.2	10.7	0.47	9.29				1.41	2.8
6119	6119	A005103	N	150	0.56	1.1	0.5	6	629.4	0.3	0.09	1.39	1.5	8.8	9.3	9.1	0.49	8.19				1.23	2.4
6120	6120	A005103	FD	166	0.54	1.5	1.7	8	544.4	0.1	0.09	1.47	1.05	7.7	8.1	8.2	0.49	8.46				0.93	2.1
6121	6121	A005103	SD	180	0.39	0.9	1	10	540.6	0.2	0.08	1.86	1.31	5.7	6.6	8.4	0.46	9.31				0.67	1.5
6124	6124	A005103	N	101	0.26	0.05	0.5	13	242.4	0.1	0.06	2.2	0.76	4.4	2.1	5.7	0.28	7.89				0.52	1
6125	6125	A005103	N	188	0.85	1	0.6	9	343.4	0.6	0.1	1.68	1.12	32.3	16.1	9	0.28	13.88				0.92	2.3
6126	6126	A005103	N	171	0.88	1.7	0.5	11	435.3	0.6	0.1	1.96	1.68	25.1	9.3	12.5	0.32	16.9				1.14	2.4
6127	6127	A005103	N	275	0.46	0.7	0.5	22	290.3	0.3	0.07	2.8	1.97	10.4	12	6.5	0.24	17.2				0.61	1.3
6128	6128	A005103	N	183	0.39	0.1	0.7	12	386	0.2	0.07	2.39	3.49	6.3	4.9	6	0.27	15.48				0.58	1.4
6129	6129	A005103	N	412	0.49	0.5	0.6	16	397.7	0.5	0.09	2.63	5.76	26.1	6.7	7.2	0.24	34.91				0.57	1.3
6130	6130	A005103	N	1080	2.04	1.6	1.1	9	663.9	1.3	0.16	1.86	6.7	62.3	12	23.3	0.8	58.44				2.16	5
6131	6131	A005103	N	121	0.21	1.7	0.2	48	377.5	0.1	0.02	5.23	1.34	3.8	1.1	2.3	0.12	18.2				0.26	0.5
6132	6132	A005103	N	119	0.42	1.7	1	44	466.3	0.3	0.05	4.36	2.72	7	5.9	6.9	0.2	19.27				0.64	1.4
6133	6133	A005103	N	203	0.73	1.2	0.2	24	576.7	0.4	0.08	2.62	2.28	11.8	13.3	12.3	0.24	14.51				1.3	2.5
6134	6134	A005103	FD	51	0.09	0.6	0.3	63	303.9	0.1	0.02	4.15	2.12	1.6	3.4	0.25	0.08	12.07				0.4	0.3
6135	6135	A005103	SD	54	0.1	0.9	0.2	67	301.5	0.1	0.02	4.16	2.32	1.7	3.1	0.25	0.08	13.35				0.4	0.3
6138	6138	A005103	N	52	0.11	1.7	0.1	68	351.7	0.1	0.02	5.27	1.38	1.4	1.5	1.3	0.12	7				0.17	0.4
6139	6139	A005103	N	81	0.56	1.9	1.4	18	452.2	0.2	0.07	2.68	0.9	11.4	5.3	11.1	0.08	15.37				1.36	2.1
6140	6140	A005103	N	55	0.5	0.7	28.6	16	246.7	0.2	0.06	2.29	2.02	10.1	4.9	9	0.25	15.29				0.77	1.8
6141	6141	A005103	N	272	1.04	0.4	0.2	11	612	0.7	0.11	2.1	6.42	18.4	9.3	13.9	0.43	29.61				1.31	3.1
6142	6142	A005103	N	460	0.48	0.8	0.3	7	426.9	0.6	0.09	1.05	1.03	20	20	6.7	0.34	12.45				0.71	1.5
6143	6143	A005103	N	326	0.26	0.05	0.3	13	353.6	0.2	0.1	1.53	0.77	6.4	12.4	4.4	0.46	6.12				0.35	0.8
6144	6144	A005103	N	45	0.13	12.3	0.8	81	143.3	0.1	0.04	7.41	0.48	2.2	3.6	2.6	0.1	4.66				1.3	0.4
6145	6145	A005103	N	110	0.18	1.6	0.8	36	211.4	0.2	0.06	4.63	0.89	4.1	1.3	2.3	0.14	9.52				0.3	0.5
6146	6146	A005103	N	712	0.41	0.7	0.1	8	483	0.3	0.11	0.94	0.9	18	28.9	6.3	0.48	9.17				0.69	1.6
6147	6147	A005103	N	891	0.3	0.05	0.5	6	912.3	0.4	0.11	1.18	1.98	17.5	35.8	4.7	0.34	28.19				0.57	1.3
6148	6148	A005103	FD	666	0.34	0.5	0.8	8	665.4	0.4	0.1	1.28	1.14	14.3	34.9	4.7	0.44	14.92				0.56	1.5
6149	6149	A005103	SD	655	0.16	0.05	0.3	14	593.1	0.6	0.07	2.14	1.15	7.6	21.5	2	0.41	11.1				0.27	0.7
6150	6150	A005103	LD	667	0.34	0.05	0.5	8	645.3	0.6	0.1	1.28	1.05	14.4	33.2	5.6	0.42	15.07				0.59	1.5
6152	6152	A005103	N	182	0.19	0.2	0.8	11	327.1	0.2	0.07	1.47	1.11	5.2	13.9	3.9	0.41	6.67				0.28	0.7

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
6153	6153	A005103	N	113	0.38	1.5	0.4	4	192.7	0.3	0.13	0.29	0.44	11.1	2.6	6.6	0.28	5.25				0.58	1.6
6154	6154	A005103	N	300	0.53	1.8	0.8	3	297.5	0.5	0.13	0.11	0.83	15.5	4.2	5.7	0.12	6.7				0.73	1.7
6155	6155	A005103	N	455	0.68	0.9	1.1	15	316.5	0.7	0.06	3.48	4.7	39.7	11.9	5.4	0.11	16.7				0.68	0.4
6156	6156	A005103	N	1411	0.86	2.3	0.3	4	740.5	1.7	0.21	0.7	3.15	67.5	39.1	9.6	0.33	20.36				1.2	2.5
6157	6157	A005103	N	614	0.46	1.1	0.3	5	597	0.5	0.13	0.56	3.05	36.4	9	4.1	0.24	9.68				0.59	1.1
6158	6158	A005103	N	775	0.73	2.4	0.6	6	753.2	1.1	0.18	0.96	4.35	53.1	82.5	5.6	0.21	14.32				1.29	1.2
6159	6159	A005103	N	828	0.5	1.2	0.7	4	558.6	0.8	0.15	0.43	2.55	30	14.1	5.9	0.27	10.54				0.69	1.4
6160	6160	A005103	N	963	0.49	1.4	0.4	3	343.3	0.4	0.1	0.42	2.22	23	13.5	7.5	0.2	9.21				0.91	0.9
6161	6161	A005103	N	781	0.22	0.6	0.4	5	362.5	0.1	0.1	0.4	2.41	8.5	5.8	4.5	0.25	5.82				0.32	0.9
6162	6162	A005103	FD	698	0.17	0.7	0.1	4	235.4	0.05	0.07	0.3	1.9	5.8	5.1	4.9	0.16	5.03				0.26	0.6
6163	6163	A005103	SD	948	0.23	0.8	0.5	3	401.8	0.1	0.1	0.47	4.19	9	8.4	3.9	0.23	8.37				0.35	0.8
6166	6166	A005103	N	1599	0.54	1.3	0.1	3	424.7	0.8	0.14	0.28	2.85	25.2	38.1	8.7	0.43	14.67				0.83	2.3
6167	6167	A005103	N	1037	0.33	1.1	0.3	10	344.1	0.4	0.1	1.07	1.14	7.8	21.4	5.9	0.52	6.74				0.53	1.2
6168	6168	A005103	N	587	0.84	2.1	0.3	12	881.6	0.7	0.18	1.88	5.86	58.5	42.8	7.9	0.46	13.54				1.08	1.8
6169	6169	A005103	N	639	0.61	0.8	0.7	6	468.6	0.4	0.09	0.72	2.94	31.4	9.4	7.8	0.32	9.24				0.73	1.6
6170	6170	A005103	N	1626	0.32	0.2	0.6	15	768.5	0.7	0.13	1.95	5.56	24.6	38	3.9	0.45	14.72				0.51	1.1
6171	6171	A005103	N	1948	0.26	0.9	0.2	5	573.1	0.5	0.13	0.88	7.41	10.4	48.2	3.2	0.33	16.46				0.43	1.1
6172	6172	A005103	N	1926	0.45	1.1	0.1	6	485.7	0.8	0.13	0.73	2.48	24.5	44.9	5.8	0.46	12.53				0.69	1.7
6173	6173	A005103	N	1802	0.69	1.2	0.2	8	477.6	1.1	0.14	1.19	3.05	54	50.8	7.7	0.41	15.45				0.97	1.9
6174	6174	A005103	N	796	0.55	0.7	0.2	9	484.4	0.7	0.11	1.33	4.86	33.8	41.4	5.7	0.37	13.06				0.78	1.4
6175	6175	A005103	N	332	0.74	0.8	0.3	7	355.8	0.6	0.08	0.94	1.23	24.7	6.4	7	0.3	7.73				0.82	1.9
6176	6176	A005103	FD	552	0.53	0.2	0.6	15	556.1	0.8	0.07	1.9	3.48	31.6	23.5	7.5	0.25	10.27				0.54	0.9
6177	6177	A005103	SD	637	0.49	0.4	0.1	13	531.4	0.7	0.09	1.9	4.75	29.8	29.6	4.4	0.24	12.43				0.6	1
6178	6178	A005103	LD	20	0.04	0.05	0.5	10	11.6	0.05	0.02	0.73	0.23	1.5	0.05	2.4	0.02	7.86				0.07	0.2
6180	6180	A005103	N	677	0.34	0.4	0.6	7	812.4	0.1	0.11	1.58	6.72	12.7	16.5	6.3	0.39	20.79				0.5	1.6
6181	6181	A005103	N	483	0.6	0.8	0.4	12	418	0.3	0.13	2.33	1.54	19.7	10.3	8.3	0.49	21.33				0.82	2
6182	6182	A005103	N	359	0.36	0.7	0.4	7	325.5	0.3	0.1	1.12	1.67	12.7	10	6.8	0.33	20.8				0.57	1.3
6183	6183	A005103	N	242	0.84	2.4	0.8	14	264.3	0.7	0.11	2.63	1.57	24.1	4.2	15.6	0.59	23.43				1.43	2.5
6184	6184	A005103	SD	195	0.62	1.8	1.3	23	226.8	0.5	0.08	3.41	1.25	18.6	2.7	10.3	0.49	16.45				1.13	1.9
6185	6185	A005103	N	239	1.15	3.5	1.1	9	343.8	0.6	0.13	1.69	0.97	20.1	4.3	16.7	0.55	18.32				1.71	3.9
6186	6186	A005103	N	670	0.62	1.4	0.4	5	345.4	0.4	0.14	0.75	0.84	16.8	12.9	10	0.46	17.03				0.99	2.6
6187	6187	A005103	N	523	0.27	0.4	0.1	27	363.5	0.2	0.07	2.47	1.56	9.3	9.7	4.3	0.6	18.98				0.42	0.9
6188	6188	A005103	N	31[illegible]	0.12	0.2	0.1	6	313.6	0.1	0.04	0.52	1.44	5.8	4.4	2.8	0.24	13.5				0.19	0.6
6189	6189	A005103	N	327	0.11	0.1	0.4	8	352.7	0.05	0.06	1.57	2.15	3.9	4.9	2.7	0.2	16.47				0.23	0.5

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
6194	6194	A005103	N	231	0.47	1.6	0.4	4	228.6	0.4	0.11	0.2	1.5	13.6	3.3	9.1	0.56	10.15				0.87	1.9
6195	6195	A005103	N	3325	0.34	0.6	0.1	6	500	0.6	0.11	0.9	4.95	13.4	33.7	6.3	0.51	22.4				0.52	1.4
6196	6196	A005103	N	286	0.51	2	0.4	10	274.4	0.4	0.09	1.68	1.43	27	17.4	8.6	0.24	6.69				0.86	1.1
6197	6197	A005103	N	295	0.97	3.2	0.7	8	191.8	0.7	0.21	0.43	0.94	25	15	17	0.68	20.09				1.56	5.2
6198	6198	A005103	N	747	0.49	1.2	0.1	3	288	0.5	0.11	0.12	0.5	13.3	11.1	6.8	0.33	12.06				0.7	2.3
6199	6199	A005103	N	62	0.24	2	0.7	5	159.9	0.2	0.07	0.76	0.34	8.2	3.3	6.2	0.23	3.98				0.41	1
6200	6200	A005103	N	71	0.13	1.1	0.1	20	159.3	0.1	0.05	2.31	1.47	4	5.2	2.7	0.2	7.34				0.37	0.6
6201	6201	A005103	N	210	0.35	0.7	0.4	16	434.2	0.3	0.09	1.83	1.03	10.8	7.4	4.4	0.41	8.32				0.44	1.2
6202	6202	A005103	N	174	0.21	0.8	0.3	9	107	0.2	0.08	0.96	0.57	5.7	2.7	4.7	0.35	5.67				0.32	0.8
6203	6203	A005103	FD	589	0.61	1.1	0.3	6	302.6	0.8	0.15	1.53	2.4	30.3	22.6	9.4	0.76	18.71				0.88	1.9
6204	6204	A005103	SD	537	0.66	1.7	0.6	7	347.5	1	0.17	1.53	2.55	36.1	37.3	10.3	0.71	19.81				0.99	2
6207	6207	A005103	N	342	0.23	0.7	0.3	8	327.9	0.1	0.08	1.27	1.82	6.9	5.9	4.6	0.28	7.54				0.33	0.8
6208	6208	A005103	N	381	0.63	1.4	0.4	5	737.7	1.3	0.13	0.95	3.35	58.4	14.2	5.8	0.49	12.02				0.9	0.8
6209	6209	A005103	N	217	0.45	1.6	0.2	4	248.5	0.7	0.06	0.65	1.98	38.6	11.9	4.1	0.22	6.3				0.7	0.4
6210	6210	A005103	N	559	0.33	0.5	0.4	9	946.8	0.4	0.06	1.28	5.62	17.9	14.8	2.8	0.55	8.1				0.31	0.6
6211	6211	A005103	N	1056	0.56	1	0.1	5	791.5	0.5	0.12	0.55	3.53	22.3	17	8.5	0.44	21.95				0.75	2.4
6212	6212	A005103	N	595	0.14	0.05	0.4	13	512.1	0.2	0.05	1.84	1.85	5.9	5.9	4.2	0.43	6.71				0.17	0.4
6213	6213	A005103	N	1794	0.21	0.9	0.2	3	720.4	0.4	0.13	0.49	5.28	8.4	12.7	4.6	0.27	14.54				0.27	0.8
6214	6214	A005103	N	1110	0.23	0.7	0.2	2	349.2	0.1	0.1	0.08	1.6	6.3	10.4	4.5	0.18	6.48				0.3	0.7
6215	6215	A005103	N	699	0.46	1.8	0.4	3	425.8	0.4	0.12	0.6	1.95	24.2	18.9	7.6	0.17	8.74				1.18	0.9
6216	6216	A005103	N	123	0.54	0.5	1.2	24	368.6	0.3	0.07	2.64	2.55	15.3	7.7	15.5	0.24	27.09				0.85	2
6217	6217	A005103	FD	165	0.83	0.8	1.4	22	451.4	0.3	0.1	2.38	2.42	20.1	9	22	0.27	29.7				1.28	3
6218	6218	A005103	SD	193	1.01	1.2	0.8	18	463.5	0.6	0.1	2.07	2.43	24.7	10.7	25.3	0.27	30.48				1.33	3.7
6221	6221	A005103	N	237	0.51	0.3	0.4	10	358.6	0.2	0.06	1.77	0.97	8.4	5.3	9.6	0.28	11.51				0.47	1.9
6222	6222	A005103	N	92	0.47	0.6	0.6	9	159.5	0.4	0.05	1.37	1.09	17.9	10.4	5.9	0.24	10.97				0.4	1.1
6223	6223	A005103	N	191	0.71	1.1	0.6	15	218.6	0.3	0.07	1.65	0.91	9.5	5.4	12.3	0.26	12.54				0.83	2.2
6224	6224	A005103	N	868	0.96	0.5	0.3	5	447.9	0.4	0.09	1.22	0.92	21.5	13.9	13.4	0.37	16.41				0.75	3.3
6225	6225	A005103	N	122	0.72	1	0.5	6	358.6	0.3	0.09	1.3	0.77	8.8	5.6	10.9	0.3	12.94				1.22	2.6
6226	6226	A005103	N	77	0.44	1.1	0.3	6	214.3	0.1	0.06	1.22	0.43	9	4	7.7	0.29	7.45				0.64	1.8
6227	6227	A005103	N	322	0.95	1.3	0.6	7	398.9	0.6	0.08	1.48	0.21	16.1	3.6	12.8	0.26	11.13				1.02	2.8
6228	6228	A005103	N	239	0.33	0.4	0.2	10	224.8	0.2	0.06	1.17	0.44	6.2	5.1	5.9	0.44	6.8				0.44	1.4
6229	6229	A005103	N	115	0.4	0.6	0.2	6	466	0.1	0.06	1.01	0.32	9.7	5.5	7.9	0.28	6.47				0.55	1.9
6230	6230	A005103	N	293	0.43	0.7	0.3	14	348.3	0.1	0.07	1.87	0.84	5.4	5	7.2	0.34	8.95				0.56	1.6
6231	6231	A005103	FD	265	0.43	0.5	0.3	15	378.4	0.2	0.07	2.04	0.86	6	4.2	7.1	0.28	11.13				0.59	1.5

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
6232	6232	A005103	SD	202	0.33	0.4	0.3	15	328.8	0.1	0.06	2.16	0.94	4.8	3.4	4.9	0.26	11.95				0.49	1.2
7001	1000	A003666	N	33	0.62	5.5	1.1	2	78.9	0.3	0.11	0.1	0.06	19.6	5	12.5	0.59	6.27	0.61	0.24	0.24	1.35	2.1
7002	1001	A003666	N	71	0.88	7.5	< .2	3	138.4	0.4	0.16	0.16	0.03	21.7	5.4	17	0.98	8.01	0.76	0.32	0.25	1.65	2.7
7003	1002	A003666	N	148	1.16	9.7	< .2	4	155.4	0.5	0.2	0.25	0.08	18.8	6.6	19.5	1.15	10.77	0.69	0.24	0.26	2	3.8
7004	1004	A003666	LD	158	1.21	9.3	0.9	4	169.5	0.7	0.21	0.29	0.07	20.3	5.7	20.5	1.15	12.79	0.81	0.33	0.29	2.03	4
7004	1003	A003666	SD	163	1.25	9.8	1.9	4	176.2	0.5	0.21	0.3	0.07	21.7	6	22.5	1.18	13.58	0.83	0.35	0.27	2.11	4.2
7005	1006	A003666	N	46	0.76	5.7	0.5	3	113.7	0.3	0.13	0.14	0.07	24.5	6	13.8	0.75	5.39	0.81	0.3	0.3	1.47	2.6
7006	1007	A003666	N	138	1.11	7.8	1.4	5	147.2	0.5	0.18	0.25	0.06	22.9	5.7	20	1.23	7.51	0.99	0.34	0.34	1.81	3.5
7007	1008	A003666	N	133	1.1	7.8	0.6	5	130.7	0.5	0.18	0.24	0.06	25.1	5.8	18.9	1.38	8.07	1.12	0.42	0.35	1.82	3.5
7008	1009	A003666	FD	89	1.09	8.4	0.6	3	176.5	0.5	0.17	0.21	0.07	22.5	6	18.2	1.16	9.78	0.83	0.33	0.31	1.84	3.4
7009	1010	A003666	N	145	1.33	9.7	1.4	5	205.2	0.7	0.22	0.28	0.09	26.3	6.9	21.7	1.16	14.85	1.02	0.38	0.32	2.16	4.1
7010	1011	A003666	N	138	1.38	10.2	1.6	6	229.5	0.8	0.24	0.38	0.06	31.8	6.5	24.5	1.49	20.55	1.61	0.66	0.55	2.43	4.5
7011	1012	A003666	N	100	1.13	9.2	0.2	4	145.5	0.5	0.17	0.15	0.06	19.1	5.7	17.4	1.09	10.06	0.68	0.26	0.25	1.82	3.5
7013	1013	A003666	N	75	1.31	9.6	1.7	7	151.3	0.7	0.22	0.3	0.06	27.8	6.1	22.6	1.53	17.25	1.51	0.62	0.55	2.16	4.2
7014	1014	A003666	N	98	1.34	8.9	1.7	5	178.2	0.8	0.21	0.27	0.07	27.9	5.4	22.1	1.34	18.48	1.35	0.53	0.41	2.07	4.3
7015	1015	A003666	N	40	0.72	9	0.5	3	125.2	0.4	0.13	0.22	0.13	34.4	7.3	18.1	0.87	6.74	1.41	0.53	0.46	1.73	2.3
7016	1017	A003666	LD	40	0.73	9.4	1.5	4	124.7	0.4	0.15	0.22	0.14	34.3	7.2	14.2	0.85	7	1.37	0.57	0.43	1.73	2.2
7016	1016	A003666	SD	35	0.73	9.6	< .2	3	125.8	0.3	0.13	0.22	0.12	33.2	7.1	14.6	0.83	7.24	1.5	0.54	0.45	1.77	2.2
7017	1019	A003666	N	98	0.96	8.7	10.8	4	125.2	0.5	0.18	0.19	0.07	23.3	5.8	17.3	1.22	9.16	0.99	0.37	0.34	1.75	3.1
7018	1020	A003666	N	83	1.25	8.7	1.5	4	186	0.7	0.2	0.27	0.06	24.3	5.7	20.6	1.33	11.57	1.03	0.41	0.33	1.95	4
7019	1021	A003666	N	111	1.18	9.1	1.9	6	163.8	0.7	0.21	0.32	0.06	29	6.1	20.8	1.43	13.62	1.63	0.69	0.48	2.04	3.7
7020	1022	A003666	FD	102	1	5.6	0.6	5	158.3	0.5	0.18	0.25	0.11	22.5	5.6	16.7	1.07	10.43	0.89	0.34	0.34	1.58	3.3
7021	1034	A003666	N	85	1.05	7.6	0.5	4	204.4	0.4	0.16	0.27	0.04	22.8	6.2	18.1	0.84	10.01	0.89	0.31	0.32	1.82	3.4
7022	1035	A003666	N	104	1.46	8.4	0.6	5	268.1	0.8	0.22	0.34	0.07	38.2	10	30.5	1.17	13.95	1.42	0.63	0.5	2.51	4.9
7023	1036	A003666	N	71	1.31	8.6	1.2	4	209.1	0.7	0.2	0.31	0.07	27.4	6.8	21.9	0.91	15.51	1.03	0.41	0.36	2.15	4.3
7025	1037	A003666	N	49	1.29	10.3	1.7	5	198.7	0.7	0.22	0.33	0.07	31.2	7.7	21.7	1.14	14.5	1.2	0.53	0.46	2.24	4.1
7026	1038	A003666	N	75	0.94	7.9	0.5	5	138.2	0.5	0.18	0.27	0.08	24	6.4	17.5	1.17	11.67	1	0.45	0.35	1.87	3.3
7027	1039	A003666	N	48	0.83	6.2	0.5	4	132.6	0.5	0.16	0.19	0.11	27.2	7.3	15.4	1.03	7.86	1.01	0.47	0.4	1.71	2.8
7028	1041	A003666	LD	60	1.28	9.2	1.5	6	175.9	0.6	0.22	0.3	0.08	31.3	7.9	22.2	1.32	13.23	1.66	0.73	0.49	2.19	4.2
7028	1040	A003666	SD	59	1.15	9.1	8.8	4	170.7	0.6	0.22	0.3	0.1	31	7.7	20.7	1.23	13.12	1.48	0.69	0.49	2.12	3.9
7029	1043	A003666	N	92	1.16	7.8	1.2	4	164.2	0.5	0.2	0.3	0.06	25.5	6.2	20.9	1.2	13.16	1.14	0.41	0.41	2.05	3.9
7030	1044	A003666	N	73	1.03	9.5	2.2	6	213.9	0.8	0.22	0.45	0.11	34.8	7	19.2	1.03	15.19	2.73	1.19	0.8	2.14	3.4
7031	1045	A003665	N	46	0.75	5.7	1.2	5	138.5	0.4	0.15	0.36	0.08	29.3	5.3	13.5	0.66	7.65	1.57	0.62	0.51	1.55	2.5
7032	1046	A003666	FD	58	1.06	6.6	1.1	6	169.8	0.7	0.19	0.38	0.11	28.4	7.1	18.8	1.21	9.37	1.85	0.85	0.7	1.91	3.6

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
7033	1047	A003666	N	47	0.82	5.7	0.7	3	146.1	0.5	0.15	0.38	0.07	35.7	6.1	15.4	0.64	8.78	1.97	0.78	0.57	1.7	2.6
7034	1048	A003666	N	124	0.76	7.5	12	6	215.8	0.5	0.17	0.85	0.11	36.8	9.4	15.8	0.67	14.31	2.43	1.08	0.75	2.05	2.6
7035	1049	A003666	N	120	1.45	9.8	2.3	7	204.9	0.7	0.25	0.37	0.07	38.6	9.5	28.7	1.11	20.74	2.07	0.9	0.59	2.74	4.8
7037	1050	A003666	N	50	0.76	6.2	2	3	151.9	0.3	0.14	0.22	0.1	32.9	7.9	15.9	0.89	9.17	1.22	0.5	0.48	1.76	2.5
7038	1051	A003666	N	103	1.19	9.4	1.1	6	162.4	0.6	0.21	0.33	0.1	29.8	7.5	20.9	1.38	14.76	1.41	0.59	0.47	2.11	4
7039	1052	A003666	N	102	1.33	8.8	0.7	6	162.3	0.6	0.21	0.32	0.09	30.6	7.8	23.2	1.31	13.94	1.5	0.57	0.45	2.23	4.4
7040	1054	A003666	LD	103	1.27	9.4	0.6	7	160.5	0.7	0.22	0.33	0.09	31.9	8	22.2	1.31	15.1	1.48	0.62	0.47	2.27	4.2
7040	1053	A003666	SD	106	1.39	9.5	1.1	8	165.9	0.8	0.23	0.33	0.09	33	7.9	24	1.39	15.75	1.53	0.63	0.5	2.38	4.5
7041	1056	A003666	N	58	0.93	8.5	0.8	6	136.7	0.6	0.16	0.41	0.07	38	6.2	17.1	1.07	6.77	2.65	1.25	0.87	2.03	3
7042	1057	A003666	N	100	0.71	5.9	0.4	9	109.9	0.6	0.14	3.37	0.11	28.9	3.5	13.3	0.87	13.87	2.35	0.99	0.67	1.68	2.4
7043	1058	A003666	N	83	1.02	6.2	0.5	4	120.5	0.7	0.16	0.25	0.08	26.1	5.2	17.8	1.18	9.12	1.08	0.45	0.35	1.7	3.4
7044	1059	A003666	FD	116	1.13	7.5	0.8	6	139.2	0.6	0.18	0.29	0.14	33.1	6.7	19	1.09	13.23	1.63	0.62	0.48	2.01	3.6
7045	1060	A003666	N	89	1.46	11.3	2.1	10	171	0.9	0.27	0.48	0.04	39.1	10.6	24.3	1.51	17.96	3.52	1.62	1.07	2.47	4.7
7046	1061	A003666	N	57	1.25	7.1	0.9	6	114.6	0.8	0.2	0.46	0.07	30.1	6.8	20.3	1.12	11.95	2.24	0.99	0.68	1.92	4
7047	1062	A003666	N	56	1.38	9.5	0.8	8	163.8	0.9	0.22	0.41	0.05	32	7.5	23	1.29	14.69	2.12	1.01	0.74	2.2	4.5
7049	1063	A003666	N	85	1.28	9.1	1.3	7	107.6	0.6	0.19	0.38	0.08	27.7	6.2	21	1.1	7.95	1.6	0.65	0.49	2.17	4.1
7050	1064	A003666	N	116	1.2	8.8	1.7	10	175.8	0.5	0.21	0.49	0.12	39.3	9.9	20.3	1.16	18.61	2.95	1.34	0.88	2.12	3.9
7051	1065	A003666	N	33	1.11	9.4	1.2	4	160.7	0.5	0.21	0.28	0.06	20.1	4.7	18.2	0.89	12.7	0.92	0.39	0.32	1.98	3.8
7052	1067	A003666	LD	45	1.09	10.8	2	3	177.1	0.5	0.22	0.32	0.1	19.9	4.7	19	0.85	14.23	1	0.42	0.29	2.07	3.5
7052	1066	A003666	SD	42	1.04	10.6	1.2	3	174.1	0.4	0.23	0.31	0.09	19.2	4.6	17.6	0.81	13.3	0.96	0.42	0.36	2.04	3.3
7053	1069	A003666	N	52	0.99	8.6	0.9	6	135.9	0.5	0.19	0.36	0.04	28.8	5.4	17.3	1.21	8.62	1.67	0.72	0.49	1.9	3.3
7054	1070	A003666	N	62	1.63	9.3	2.7	8	173.3	0.8	0.28	0.57	0.04	31.1	8.7	27	1.21	20.99	2.45	1.2	0.8	2.48	5.4
7055	1071	A003666	N	45	0.9	8.2	0.9	3	134.2	0.4	0.18	0.14	0.06	21.7	5.7	16.1	0.82	9.03	0.73	0.32	0.27	1.75	3
7056	1072	A003666	FD	46	0.92	9.7	0.8	2	102.3	0.6	0.17	0.12	0.07	18.8	5.4	15.7	0.8	12.35	0.67	0.32	0.25	1.94	2.9
7057	1073	A003666	N	69	1.07	11.7	0.9	4	163.6	0.5	0.2	0.22	0.06	24.3	6.5	18.1	0.84	13.36	1.02	0.39	0.32	2.15	3.4
7058	1074	A003666	N	46	0.97	8.6	1.3	4	144.8	0.7	0.17	0.21	0.06	24.3	5.6	17.5	0.97	10.23	0.82	0.4	0.28	1.77	3.1
7059	1075	A003666	N	31	1.41	5.4	1.6	5	105.8	0.4	0.2	0.33	0.02	21.9	4	22	1.08	10.36	0.7	0.26	0.27	1.77	4.7
7061	1076	A003666	N	45	1.31	9.1	1.6	4	100.3	0.5	0.23	0.21	0.05	21.4	4.7	20.4	1.13	12.57	0.84	0.42	0.29	2	4.4
7062	1077	A003666	N	60	1.11	6.4	1.3	5	149.5	0.7	0.16	0.24	0.06	29.5	5.5	18.4	0.99	9.04	1.59	0.68	0.55	1.81	3.6
7063	1078	A003666	N	96	1.11	4.2	0.6	7	123.4	0.7	0.15	0.39	0.05	28.9	3.6	18	0.88	8.84	1.75	0.84	0.57	1.5	3.6
7064	1080	A003666	LD	66	0.92	3.4	1	6	101.7	0.3	0.12	0.32	0.03	27.4	2.9	15.5	0.78	7.02	1.65	0.69	0.48	1.25	2.9
7064	1079	A003666	SD	75	0.93	3.6	0.9	7	102.7	0.6	0.13	0.32	0.03	28	2.9	15.6	0.81	7.1	1.56	0.8	0.52	1.26	3
7065	1082	A003666	N	35	0.76	2.6	1.9	3	92.2	0.3	0.09	0.17	0.02	27.6	3.8	13.9	0.77	3.99	1.01	0.36	0.38	1.14	2.5
7066	1083	A003666	N	44	1.54	7.2	2.1	5	108.5	0.6	0.22	0.27	0.04	26.5	5.1	24.7	1.29	14.38	1.12	0.43	0.39	2.15	5

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
7067	1084	A003666	N	46	1.27	5.3	0.9	6	107.1	0.5	0.16	0.22	0.01	28	4.4	20.6	1.16	11.96	1.14	0.49	0.43	1.74	4
7068	1085	A003666	FD	87	1.68	6.5	3.3	6	167.4	0.9	0.24	0.28	0.05	31.6	6.7	25.4	1.49	15.66	1.42	0.58	0.47	2.15	5.4
7069	1171	A004659	N	206	1.74	9.4	2.3	2	266.7	1	0.13	0.49	0.09	29.1	13.1	23.4	1.08	18.45	1.12	0.49	0.37	2.07	5.8
7070	1172	A004659	N	77	1.37	7.5	3.5	1	135.5	0.5	0.19	0.5	0.02	20.3	5.5	17.8	1.05	20.24	1.76	0.92	0.46	1.84	4.4
7071	1173	A004659	N	122	1.42	4.5	3.2	2	107.1	0.5	0.19	0.45	0.06	20.2	7.8	21.5	1.26	21.78	1.08	0.49	0.31	1.99	4.7
7072	1174	A004659	N	146	1.53	1.7	4.1	2	117.7	0.6	0.15	0.61	0.03	13.3	5.4	17.9	1.05	13.05	0.44	0.15	0.18	1.58	4.1
7073	1175	A004659	N	134	1.59	8.5	3.6	1	143.3	0.8	0.16	0.55	0.04	18.8	7	20.1	1.05	21.53	1.02	0.47	0.28	1.96	4.5
7074	1176	A004659	N	109	1.63	9.8	2.4	4	338.7	0.8	0.22	0.47	0.09	39.4	12	29.5	1.25	20.07	2.07	0.85	0.56	2.72	5.5
7075	1177	A004659	N	84	1.71	9.9	8.8	4	324.5	0.8	0.2	0.46	0.09	31.9	12.2	29.1	1.19	21.25	1.57	0.63	0.48	2.61	5.6
7076	1178	A004659	N	89	1.35	7.6	1.4	3	251.9	0.4	0.16	0.38	0.07	25.2	8.2	22.7	1.08	13.58	0.98	0.4	0.31	2.13	4.5
7077	1179	A004659	N	72	1.77	9.3	1.6	4	278.4	0.6	0.2	0.5	0.06	23	8.7	28.5	1.34	19.39	1.17	0.57	0.4	2.71	5.9
7078	1180	A004659	FD	55	1.32	9	1.6	3	248.9	0.6	0.15	0.32	0.08	31.7	8.8	22.3	0.94	14.47	1.46	0.66	0.42	2.22	4.3
7079	1181	A004659	SD	59	1.42	9.7	1.4	3	266.6	0.7	0.17	0.33	0.07	33.5	9.3	24	1.07	15.46	1.66	0.69	0.45	2.37	4.5
7080	1182	A004659	LD	61	1.39	9.9	1.4	3	268.6	0.6	0.17	0.33	0.08	34.2	9.1	23.4	1.08	14.87	1.67	0.72	0.46	2.37	4.4
7082	1184	A004659	N	118	2.16	4.5	1.3	4	280.5	1	0.14	0.55	0.05	37.8	25.4	131.7	1.28	32.32	0.68	0.26	0.22	3.85	8
7083	1185	A004659	N	77	2.75	2	0.7	3	250.7	0.9	0.08	0.83	0.08	38.4	56.8	256.7	0.67	28.76	1.06	0.4	0.42	5.01	9
7084	1186	A004659	N	116	2.67	1.1	1.1	5	311.6	1	0.11	0.71	0.09	47	54.8	223.2	1.29	21.96	1.24	0.48	0.55	4.54	7
7085	1187	A004659	N	49	2.12	3.7	53.3	5	233.6	0.8	0.13	0.48	0.08	42	31.4	147.6	0.89	23.27	1.04	0.39	0.43	3.58	6
7086	1188	A004659	N	96	2.2	2.8	1.2	8	233.8	0.8	0.1	1.1	0.08	23.1	36.3	188.4	0.93	34.69	1.8	0.77	0.72	3.75	5.9
7087	1189	A004659	N	153	1.32	20.4	3.3	9	270	0.7	0.18	0.51	0.05	30.8	9.1	32.1	1.4	23.37	3.27	1.67	0.98	2.52	4.8
7088	1190	A004659	N	108	1.71	9.8	1.7	5	223.7	0.8	0.22	0.28	0.06	21.1	8.1	30.7	1.31	21.03	0.89	0.37	0.26	2.47	5.8
7089	1191	A004659	N	73	1.27	6.5	0.4	3	184.9	0.5	0.13	0.28	0.05	24.4	8.6	40.7	1	12.48	0.87	0.38	0.26	2.16	4.3
7090	1192	A004659	N	87	2.25	7.3	0.9	5	358.6	0.9	0.16	0.39	0.13	40.4	23.5	108.1	1.18	22.59	1.35	0.56	0.45	3.46	6.4
7091	1193	A004659	N	129	2.29	1.2	2	4	508.6	0.8	0.09	1.09	0.18		66.4	222.8	0.79	47.28	2.68	1.21	1.4	4.49	5.7
7092	1194	A004659	FD	99	2.65	1.6	2	4	289.1	0.9	0.1	0.51	0.26	68.1	43.8	193	1.18	37.94	2.17	0.93	0.95	4.39	7
7093	1195	A004659	SD	93	2.6	1.5	0.7	4	250.7	0.9	0.1	0.5	0.23	67.1	44.5	189.6	1.15	38.79	2.02	0.87	0.97	4.32	6.9
7094	1196	A004659	LD	98	2.55	1.5	0.5	4	247.4	0.9	0.1	0.49	0.24	66.4	43.2	186.7	1.17	37.93	1.92	0.91	1.04	4.27	6.6
7096	1198	A004659	N	91	2.46	1.4	0.7	6	239.1	0.8	0.1	0.51	0.19		55.5	192	1.19	38.66	2.81	1.17	1.45	4.3	6.1
7097	1199	A004659	N	184	2.52	1.5	0.3	6	330.8	0.8	0.1	0.74	0.14	95	51.9	197	1.2	26.23	2.53	0.94	1.39	4.17	6.2
7098	1200	A004659	N	113	1.95	1.9	2.7	7	469.5	0.8	0.09	1.03	0.12	71.8	35.7	147.6	0.91	31.46	2.48	1.02	1.23	3.32	5.3
7099	1201	A004659	N	82	2.14	2.6	1.5	5	386.2	0.8	0.12	0.54	0.13	68.3	36.7	140	1.07	25.01	2.09	0.79	0.94	3.69	6.1
7100	1202	A004659	N	145	1.86	4.2	0.6	5	202.8	0.6	0.13	0.48	0.15	48.1	18.2	94	1.04	21.59	1.83	0.69	0.69	3.05	5.4
7101	1203	A004659	N	132	1.59	3.9	1.7	4	176	0.6	0.15	0.35	0.06	37.6	14.3	61.2	0.87	21.72	1.88	0.79	0.73	2.89	5.1
7102	1204	A004659	N	165	1.64	7	4.1	2	219.3	0.6	0.13	0.5	0.03	22.5	8.5	25.3	0.66	21.33	1.28	0.55	0.43	2.45	5.1

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
7103	1205	A004659	N	82	2.05	3.7	2.9	3	2843.8	0.8	0.15	0.69	0.06	47.8	9.7	35.9	1.39	34.02	3.61	1.47	1.08	2	6.5
7104	1206	A004659	N	89	2.66	1	1.7	4	349.8	1	0.11	0.5	0.11	60.2	51	204.7	1.19	32.36	0.8	0.32	0.28	4.27	7.4
7105	1207	A004659	N	81	1.62	10.5	2.3	3	262	0.8	0.2	0.38	0.06	33.6	9.5	40.7	0.94	25.97	1.69	0.66	0.48	2.62	5.6
7106	1208	A004659	FD	68	1.32	4.8	5	2	114.8	0.4	0.2	0.27	0.03	19.6	6	22.5	1.04	21.59	0.96	0.39	0.29	1.38	4
7107	1209	A004659	SD	69	1.37	5	3.7	1	120.8	0.6	0.19	0.29	0.03	19.7	6.7	29.1	1.02	23.96	1.01	0.41	0.3	1.55	4.2
7108	1210	A004659	LD	69	1.56	4.9	3.4	1	122.9	0.5	0.19	0.3	0.03	20.8	7.1	31	1.01	23.84	1.01	0.44	0.32	1.62	4.6
7110	1212	A004659	N	104	2.46	1	0.4	4	788.8	1	0.13	0.58	0.07	34.5	40.2	197.3	1.87	25.69	0.73	0.28	0.34	4.28	7.7
7111	1213	A004659	N	112	2.33	1.8	12.8	4	285.4	0.8	0.13	0.55	0.12	38.5	36.6	174.2	1.42	24.02	1.28	0.49	0.59	3.89	7
7112	1214	A004659	N	123	1.78	6.2	1.2	4	228.1	0.7	0.14	0.35	0.08	33.6	15.8	80.7	1.18	21.85	0.97	0.38	0.29	2.65	5.5
7113	1215	A004659	N	130	2.7	1	1.3	4	234.1	1	0.1	0.62	0.09	50.7	49.3	238.1	1.18	31.27	1.43	0.51	0.61	4.32	7.2
7114	1216	A004659	N	89	2.66	1.8	1	4	259.7	1.1	0.1	0.79	0.09	60.1	60.3	231.9	1.12	32.73	1.46	0.57	0.69	4.29	7
7115	1217	A004659	N	142	2.48	1.8	0.6	5	291.5	0.7	0.11	0.78	0.11	40.5	38.7	185.4	1.28	23.36	0.93	0.35	0.43	4.09	7.4
7116	1218	A004659	N	196	2.23	4.4	28.6	8	529.3	0.7	0.11	0.77	0.19	62.5	35.6	167.9	1.15	23.52	1.72	0.66	0.87	3.83	6.6
7117	1219	A004659	N	89	1.57	7.7	2.1	4	239	0.7	0.16	0.39	0.05	31.1	8.4	25.8	1.13	21.83	2.73	1.28	0.85	2.23	5.1
7118	1220	A004659	N	195	2.13	7.1	3.8	2	244.6	0.9	0.15	0.51	0.06	23.7	10.1	33.9	1.36	27.1	2.27	1.18	0.78	2.9	7.1
7119	1221	A004659	N	40	1.88	10	1.4	2	183.6	0.6	0.11	0.36	0.04	28.5	10.6	33	0.81	16.12	1.55	0.71	0.53	2.26	7
7120	1222	A004659	FD	97	2.28	8.7	0.9	2	300.7	0.7	0.14	0.54	0.06	22.1	7.8	32.9	1.32	16.73	1.24	0.54	0.41	2.57	7.6
7121	1223	A004659	SD	97	2.25	8.5	8.7	3	298.1	0.7	0.14	0.54	0.06	21.7	8.1	31	1.22	16.54	1.2	0.55	0.4	2.47	7.6
7122	1224	A004659	LD	97	2.17	8.3	0.9	2	293.8	0.7	0.14	0.53	0.05	21.5	7.8	30.4	1.18	15.64	1.2	0.54	0.39	2.42	7.3
7124	1226	A004659	N	126	1.64	4	2.2	3	165.3	0.9	0.11	0.61	0.05	25.4	6.6	23.8	1.08	16.47	3.74	1.69	1.16	2.99	5.7
7125	1227	A004659	N	94	2.36	10	3.1	3	209.7	1.1	0.2	0.52	0.03	33.6	14.2	38.3	1.32	40.72	2.11	1	0.74	3.11	7.9
7126	1228	A004659	N	142	1.82	6.4	7.1	6	189.4	0.7	0.11	1.37	0.09	24.1	7.7	43.1	0.93	31.81	1.97	0.96	0.69	2.2	7.4
7127	1229	A004659	N	97	1.51	3.1	0.9	2	138.3	0.6	0.11	0.34	0.04	25.7	6.3	26.7	1.07	12.62	1.85	0.79	0.58	1.76	4.8
7128	1230	A004659	N	78	1.73	2.5	1	3	153.2	0.8	0.13	0.65	0.07	31.6	9.1	29.7	0.69	21.48	2.74	1.27	0.97	1.88	6
7129	1231	A004659	N	90	1.83	2.9	3.1	3	121.7	0.8	0.15	0.62	0.07	27.7	12.8	34.3	1.27	36.47	2.78	1.39	0.91	2.44	6.7
7130	1232	A004659	N	142	1.67	2.9	3.3	3	151.7	0.5	0.1	0.65	0.08	24.8	10.5	34.5	0.89	25.92	2.18	1.08	0.65	1.92	6.6
7131	1233	A004659	N	124	1.75	1.8	2.3	4	185.4	0.8	0.13	0.87	0.07	22	8.1	33.2	0.97	21.29	1.52	0.74	0.53	2.33	6.7
7132	1234	A004659	N	182	1.43	3.1	1.3	5	685.6	0.5	0.11	0.8	0.18	25.7	5.5	27.6	0.76	37.38	2.09	1	0.75	1.95	4.8
7133	1235	A004659	N	118	1.51	1.8	0.7	5	266.9	0.6	0.16	0.51	0.25	34.7	9.1	29.6	0.89	29.31	2.37	1.04	0.75	1.97	5
7134	1236	A004659	FD	143	1.66	5.4	1.7	4	270.7	0.6	0.15	0.8	0.34	28.7	10.1	33.5	1.08	40.2	2.42	1.17	0.8	2.85	6.1
7135	1237	A004659	SD	143	1.39	5.2	3.9	4	275.4	0.9	0.15	0.73	0.35	30.1	9.6	28.6	1.18	38.4	2.71	1.23	0.84	2.69	5.4
7136	1238	A004659	LD	145	1.37	4.8	2.8	4	272.2	0.7	0.16	0.73	0.36	29.9	9.6	26.4	1.19	37.25	2.62	1.3	0.85	2.66	5.4
7138	1240	A004659	N	97	1.29	1.7	2.1	5	190.2	0.8	0.13	0.66	0.24	30.9	8.9	24.5	1.11	26.12	2.41	1.1	0.83	1.27	4.9
7139	1241	A004659	N	106	1.09	2.6	4.6	7	318.5	0.8	0.13	0.7	0.46	29.8	8.2	21.3	0.91	29.44	2.37	1.11	0.82	1.47	4.2

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
7140	1242	A004659	N	78	1.38	4.3	1.4	4	248.6	0.7	0.14	0.57	0.09	28.9	7	22.9	1	16.09	2.48	1.14	0.87	1.8	4.9
7141	1243	A004659	N	95	1.28	3.2	2.1	4	167.1	0.5	0.15	0.51	0.1	30.9	7.9	19.9	1.08	19.15	1.96	0.93	0.76	1.64	4.5
7142	1342	A004659	N	37	0.9	8.5	2.4	4	125.7	0.7	0.21	0.15	0.04	35.1	4.9	15.5	0.98	13.96	2.04	0.89	0.63	1.99	3.4
7143	1343	A004659	N	32	1.22	11.8	1.4	5	200	1	0.3	0.26	0.06	36.4	5.5	20.4	1.25	21.56	2.2	0.92	0.64	2.61	4.2
7144	1344	A004659	N	76	0.51	31	0.6	21	192.9	0.4	0.11	7.54	0.2	16.6	6.6	9.7	0.34	12.01	1.37	0.67	0.43	3.17	1.9
7145	1345	A004659	N	100	1.01	9.6	1.4	7	79.9	0.7	0.24	0.61	0.09	42.6	6.9	20.1	0.86	21.07	3.17	1.54	0.94	2.35	3.8
7146	1346	A004659	N	36	0.89	5.4	0.9	3	97	0.6	0.15	0.11	0.03	31.1	4.9	14.5	0.8	9.43	1.25	0.53	0.37	1.76	3.3
7147	1347	A004659	N	48	0.98	7.7	1.4	4	119.4	0.8	0.19	0.12	0.04	34.3	5.5	17.1	0.98	11.43	1.41	0.61	0.42	2.06	3.7
7148	1348	A004659	FD	47	1.06	8.1	1	4	114	0.9	0.21	0.09	0.03	33.1	5.3	19.1	0.98	12.63	1.25	0.52	0.4	2.04	3.9
7149	1349	A004659	SD	44	1.01	7.2	1.6	4	113.6	0.8	0.18	0.09	0.04	30.3	4.9	16.4	0.98	10.79	1.13	0.43	0.32	1.88	3.7
7150	1350	A004659	LD	44	1.01	7.3	0.6	5	114	0.8	0.18	0.09	0.04	31.6	4.7	16.6	0.99	11.22	1.18	0.45	0.38	1.88	3.8
7152	1352	A004659	N	46	1.05	8.1	1.7	4	144.2	0.9	0.21	0.12	0.05	33.9	5.2	18.6	1	15.56	1.56	0.67	0.45	2	3.7
7153	1353	A004659	N	43	1.16	8.7	2.2	5	183.7	0.9	0.22	0.31	0.07	45.1	6.9	21.2	1.07	20.89	3.98	1.84	1.28	2.21	4.2
7154	1354	A004659	N	38	1	9.2	0.7	4	145.2	0.9	0.22	0.15	0.04	39.9	6.6	17.4	1.01	12.35	2.49	1.04	0.72	2.24	3.4
7155	1355	A004659	N	161	0.94	5	1.7	6	315	0.8	0.2	0.42	1.19	44.1	8.4	17.5	1.03	15.1	3.24	1.55	0.97	1.65	3.5
7156	1356	A004659	N	126	1.07	9.6	1.4	5	236.3	0.8	0.3	0.25	0.06	28.4	5.3	16	1.38	15.59	1.55	0.67	0.45	1.88	3.8
7157	1357	A004659	N	55	0.95	7.7	0.5	5	170.3	0.8	0.23	0.23	0.05	27.8	5.9	16.6	1.31	11.65	1.37	0.68	0.42	1.81	3.2
7158	1358	A004659	N	80	0.83	7.4	1.1	4	201.4	0.6	0.24	0.22	0.04	32.4	3.7	15.1	1.41	10.37	1.86	0.86	0.53	1.64	3
7159	1359	A004659	N	166	1.13	8.1	1.7	5	179.4	0.8	0.24	0.23	0.05	37	5.8	18.4	1.16	16.67	2.42	1.11	0.71	2.09	3.9
7160	1360	A004659	N	66	0.67	6.8	0.7	2	98	0.6	0.17	0.14	0.05	35.1	4.6	13.2	0.75	10.51	2.2	0.94	0.6	1.46	2.5
7161	1361	A004659	N	56	0.83	5.3	0.7	3	121	0.5	0.13	0.14	0.05	29.7	5.6	14.5	0.69	7.26	1.22	0.52	0.32	1.56	2.9
7162	1362	A004659	FD	37	0.89	4.7	0.4	3	141.7	0.6	0.12	0.17	0.05	28.7	5.3	16.8	0.69	7.84	1.09	0.42	0.32	1.54	3.1
7163	1363	A004659	SD	42	0.91	5	1	3	144.9	0.5	0.13	0.17	0.05	30.6	5.8	15.9	0.74	8	1.14	0.44	0.35	1.58	3.3
7164	1364	A004659	LD	42	0.84	5.1	1.1	2	143.5	0.6	0.13	0.17	0.05	27.4	6	16	0.64	7.94	1.07	0.4	0.36	1.58	3.1
7166	1366	A004659	N	91	0.91	6.9	1.4	2	91.4	0.7	0.16	0.11	0.06	33.3	6.6	15	0.87	10.28	1.5	0.58	0.41	1.82	3.3
7167	1367	A004659	N	129	1.1	12	2	4	126	0.9	0.32	0.18	0.06	33.9	7.9	18.7	1.25	24.11	2.26	1.07	0.73	2.44	3.8
7168	1368	A004659	N	40	0.57	3.3	1.6	2	86.4	0.3	0.1	0.13	0.03	25	3.5	11.9	0.74	3.65	1.01	0.41	0.28	1.08	2.1
7169	1369	A004659	N	44	0.77	2.8	0.6	2	97.9	0.5	0.1	0.14	0.04	35.9	4.6	13.9	0.67	7.34	1.53	0.65	0.48	1.26	2.7
7170	1370	A004659	N	51	0.95	4.3	0.6	4	86.2	0.4	0.11	0.06	0.04	32.1	7.2	17.6	0.69	7.1	1.01	0.44	0.31	1.54	3.4
7171	1371	A004659	N	688	1.45	13.9	1.8	6	598.7	1.3	0.26	0.15	0.25	39.3	17.4	25.1	1.19	23.35	3.43	1.79	1.11	2.61	4.8
7172	1372	A004659	N	202	0.92	5.4	0.5	4	125.8	0.5	0.15	0.1	0.04	28.3	5	16.3	0.91	11.15	1.28	0.64	0.38	1.56	3.3
7173	1373	A004659	N	60	0.5	2.4	0.3	1	54	0.4	0.08	0.1	0.04	29.2	3.6	11	0.58	3.42	0.99	0.46	0.36	0.92	2
7174	1374	A004659	N	99	0.95	7.9	1.4	4	100.2	0.6	0.2	0.12	0.05	29.7	5.6	16.3	0.93	11.73	1.25	0.6	0.44	1.79	3.4
7175	1375	A004659	N	78	1.33	7.4	1.8	6	152.4	0.8	0.25	0.27	0.04	43.7	5.8	20.2	1.15	17.19	2.27	1.08	0.74	2.03	4.6

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
7176	1376	A004659	FD	50	1.43	9.3	2.5	7	142.5	0.7	0.24	0.26	0.06	38	6.9	24.3	1.49	21.26	2.37	1.19	0.77	2.32	5.2
7177	1377	A004659	SD	46	1.32	8.4	3.1	6	133	0.9	0.24	0.24	0.05	38.6	6.6	23.9	1.38	21.41	2.25	1.17	0.79	2.22	4.9
7178	1378	A004659	LD	41	1.23	8.4	2.4	5	128.6	0.8	0.23	0.23	0.04	36.6	6.6	22.2	1.24	20.51	2.2	1.1	0.8	2.15	4.6
7180	1380	A004659	N	86	1.26	5.2	2	5	130.1	0.8	0.15	0.23	0.04	41.4	5.8	22.7	0.92	12.11	1.62	0.78	0.53	1.91	4.4
7181	1023	A003666	N	128	1.55	7.8	2.2	7	237.4	0.6	0.2	0.39	0.06	35.6	7.2	25.6	1.44	10.69	2.36	0.99	0.79	2.32	4.8
7182	1024	A003666	N	70	1.26	7.7	1	4	176.2	0.7	0.2	0.28	0.07	33.2	6.1	20.2	1.31	12.5	1.98	0.87	0.66	1.99	3.9
7183	1025	A003666	N	118	0.88	8.9	2.3	8	351.9	0.3	0.16	1.8	0.19	31.1	6.9	16.5	1.21	19.46	2.5	1.1	0.8	1.91	2.9
7184	1026	A003666	SD	119	0.88	8.9	3.4	7	248.8	0.6	0.17	1.26	0.15	32.5	7.5	16.4	1.2	19.06	2.62	1.17	0.8	1.87	2.8
7184	1027	A003666	LD	119	0.84	8.7	1.6	7	245.9	0.6	0.17	1.26	0.19	31.7	7.5	15.6	1.17	19.54	2.42	1.09	0.75	1.86	2.7
7185	1029	A003666	N	159	1.24	10.8	5.8	8	201.2	0.8	0.23	0.83	0.1	35.4	7.2	22	1.13	21.05	3.3	1.59	1.04	2.55	4.2
7186	1030	A003666	N	90	1.3	11.1	3.5	6	208	0.7	0.26	0.36	0.08	39.9	7.7	22.9	1.47	23.7	2.97	1.23	0.92	2.45	4.1
7187	1031	A003666	N	139	0.92	4.2	0.5	4	200.7	0.4	0.13	0.24	0.08	21.2	5.2	15.4	0.9	7.09	0.87	0.33	0.33	1.48	3
7188	1032	A003666	N	109	1.15	14.4	2.9	5	168.6	0.7	0.22	0.33	0.08	36.4	8.6	20.3	1.23	20.09	1.74	0.73	0.5	2.48	3.7
7189	1033	A003666	N	131	1.03	12.4	2.6	8	382.1	0.8	0.25	0.44	0.12	36.5	9.8	18.8	1.1	28.85	4.08	1.89	1.16	2.36	3.5
7194	1381	A004659	N	72	0.59	1	0.4	3	80.7	0.3	0.07	0.1	0.23	29.9	2.8	9.7	0.71	4.37	0.93	0.39	0.36	0.66	2.4
7195	1382	A004659	N	29	0.7	5.2	0.8	4	66.1	0.6	0.13	0.14	0.07	27.4	4.8	10.8	0.61	4.37	1.02	0.45	0.36	1.34	2.3
7196	1383	A004659	N	54	1.19	6.8	1.8	5	153.1	0.7	0.18	0.29	0.06	35.4	5.5	19.9	1.01	14.19	2.54	1.23	0.81	1.94	4.2
7197	1384	A004659	N	82	1.42	8.6	2.8	7	160.3	1	0.22	0.36	0.05	43.5	5.7	22.8	1.22	17.15	3.06	1.61	1.01	2.31	4.9
7198	1385	A004659	N	35	0.99	7.2	1.6	4	83.2	0.6	0.17	0.11	0.04	32.1	6.3	17	0.89	12.13	1.33	0.55	0.45	1.85	3.6
7199	1386	A004659	N	18	1.03	8.3	2.2	5	141.6	0.6	0.18	0.27	0.05	51.4	6.8	18.1	1.01	15.73	3.01	1.28	0.94	2.06	3.7
7200	1387	A004659	N	34	1.14	10.2	1.6	8	149.1	0.8	0.18	0.31	0.06	34.6	6.6	20.8	1.13	11.63	2.07	1.01	0.68	2.76	3.8
7201	1388	A004659	N	42	1.19	9.7	2.3	5	168	0.8	0.24	0.33	0.04	38	6.1	19.2	1.08	14.3	2.45	1.19	0.76	2.23	4.2
7202	1389	A004659	N	40	1.24	8.5	2.2	5	147	1	0.21	0.38	0.05	38.6	6.1	22.6	1.13	15.93	2.92	1.42	0.92	2.16	4.2
7203	1390	A004659	FD	45	1.06	4.7	1.4	5	117.5	0.6	0.14	0.25	0.03	30.6	4.9	17.4	1.11	7.2	1.24	0.53	0.41	1.65	3.8
7204	1391	A004659	SD	57	1.24	4.8	0.7	5	130.6	0.7	0.15	0.28	0.04	31.5	5.6	21.2	1.15	8.51	1.26	0.54	0.47	1.81	4.3
7205	1392	A004659	LD	54	1.27	5.1	1.4	5	131.5	0.6	0.15	0.28	0.03	32.4	5.7	20.6	1.19	9.09	1.28	0.57	0.45	1.82	4.4
7207	1394	A004659	N	61	1.3	9.5	2.3	5	188.8	1.4	0.28	0.42	0.04	41.8	6.4	19.8	1.21	20.74	3.17	1.58	1.05	2.28	4.5
7208	1395	A004659	N	45	1.11	8	1.6	6	153.7	0.8	0.2	0.29	0.04	34.3	5.1	18.1	1.17	11.81	1.85	0.87	0.56	2	4
7209	1396	A004659	N	51	0.93	7.1	2	5	149.5	0.6	0.21	0.24	0.04	33	4.6	17.5	1.28	14.07	1.98	0.92	0.62	1.74	3.3
7210	1397	A004659	N	42	1.12	5.5	2.3	3	136.4	0.7	0.16	0.14	0.05	33.7	6	20	0.98	11.7	1.46	0.65	0.48	1.9	4
7211	1398	A004659	N	46	0.7	5.1	1	3	102.6	0.4	0.11	0.11	0.03	28.4	4.8	11.4	0.63	7.79	1.2	0.51	0.38	1.29	2.6
7212	1399	A004659	N	59	1.06	4.8	1.4	4	148.1	0.6	0.13	0.2	0.04	35.6	5.6	19.7	0.92	11.36	1.55	0.7	0.47	1.7	3.6
7213	1400	A004659	N	58	0.84	9.2	0.8	3	111.8	0.5	0.18	0.13	0.04	20.5	3.8	12.6	0.9	10.22	0.72	0.33	0.23	1.72	3
7214	1401	A004659	N	45	1.08	6.6	0.9	3	109.6	0.7	0.15	0.13	0.04	30.8	6.1	19.4	0.81	11.64	1.2	0.52	0.39	1.88	3.7

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
7215	1402	A004659	N	29	0.66	6.1	0.8	3	113.7	0.5	0.15	0.16	0.03	33.1	4.7	13.6	0.84	9.22	1.65	0.67	0.45	1.38	2.4
7216	1244	A004659	N	150	1.07	1.4	3.8	6	190	0.2	0.19	0.63	0.08	20.9	6.1	16.1	1.57	25.07	1.32	0.6	0.52	1.27	3.4
7217	1245	A004659	FD	188	1.69	5.8	5.7	5	360.9	0.6	0.15	2.64	0.21	37.2	13.9	32.9	1.69	35.47	3.6	1.65	1.24	2.51	5.8
7218	1246	A004659	SD	182	1.7	6.5	4.3	4	367.7	0.6	0.15	2.82	0.22	36.9	14.9	31.7	1.7	35.48	3.48	1.53	1.21	2.62	5.8
7218	1247	A004659	LD	168	1.63	6.1	4.8	4	355.9	0.6	0.14	2.75	0.2	36.4	14.7	30.9	1.57	34.66	3.34	1.47	1.17	2.54	5.6
7221	1248	A004659	N	60	1.19	1.4	4	3	282.7	0.7	0.18	0.48	0.04	40.8	9.7	26.1	1.13	21.58	2.96	1.37	1.02	1.51	4.5
7222	1249	A004659	N	154	2.47	13.1	4.1	2	243.9	1	0.2	0.53	0.05	30.4	13.3	41.4	1.19	45.6	2.53	1.1	0.95	3.59	8.5
7223	1250	A004659	N	163	1.8	3.1	4.3	2	263.3	1	0.17	0.57	0.04	28.8	25.5	24.6	0.92	31.46	2.41	1.13	0.89	3.12	5.8
7224	1251	A004659	N	100	1.06	1.4	1.5	2	169.1	0.5	0.12	0.27	0.04	31.6	3.7	19.8	0.7	9.32	1.55	0.63	0.55	0.99	3.7
7225	1252	A004659	N	152	1.95	5.8	2.8	3	256.6	1	0.15	0.7	0.07	41.4	12.4	33	0.81	28.91	3.71	1.77	1.26	3.42	7.6
7226	1253	A004659	N	107	2.21	18	2.4	4	295.7	1.3	0.2	0.58	0.08	31.7	16	37.3	0.71	24.36	2.1	0.97	0.66	5.2	7.3
7227	1254	A004659	N	75	1.84	5.9	2.6	2	170.5	0.7	0.16	0.38	0.02	22.2	7.3	26.7	1.26	23.61	1.08	0.48	0.42	2.38	6.2
7228	1255	A004659	N	119	2.14	8.7	1.4	2	357.2	0.8	0.18	0.58	0.05	31.5	10.8	32	1.16	20.9	1.23	0.53	0.42	3.09	6.9
7229	1256	A004659	N	61	1.96	9.6	0.3	3	609.3	0.8	0.13	0.55	0.07	41.1	24.7	43	0.91	11	1.22	0.52	0.44	2.9	6.5
7230	1257	A004659	N	60	1	5.3	0.9	3	138.6	0.6	0.13	0.25	0.04	28.5	5.6	18.8	0.8	11.2	1.21	0.48	0.38	1.83	3.2
7231	1258	A004659	FD	100	1.52	7.4	4.3	4	289.2	0.7	0.14	0.46	0.07	38.2	10.4	31.2	1.04	21.47	3	1.27	0.98	2.4	5.2
7232	1259	A004659	SD	86	1.48	7.5	2.2	4	275.7	0.8	0.14	0.45	0.06	37.4	10.1	29.9	0.96	19.6	2.67	1.07	0.84	2.39	5
7232	1260	A004659	LD	83	1.45	7.6	3.5	4	275.3	0.7	0.14	0.44	0.06	36.3	10.1	29.2	0.96	19.38	2.67	1.05	0.81	2.37	4.9
8001	1086	A003666	N	127	0.94	9.2	1.6	9	320.9	0.6	0.25	3.14	0.24	32.4	6.9	17.7	1.14	23.09	2.43	1.24	0.87	2.13	3.3
8002	1087	A003666	N	118	1.22	13	2.1	7	256.2	0.8	0.31	0.43	0.15	54.7	9.6	23.2	1.55	28.58	4.96	2.48	1.58	2.6	4.3
8003	1088	A003666	N	127	0.93	9.5	1.6	8	334.9	0.5	0.23	1.91	0.2	35.4	8.1	17.5	1.38	23.97	2.63	1.24	0.85	2.16	3.2
8004	1090	A003666	LD	181	0.91	9.2	1.5	8	317.1	0.6	0.24	2.11	0.19	33.3	6.8	17.7	1.26	24.97	2.53	1.32	0.84	2.15	3.2
8004	1089	A003666	SD	185	0.88	9.3	1.1	7	305.7	0.6	0.22	2.02	0.19	32.3	6.7	16.8	1.27	23.78	2.47	1.25	0.86	2.07	3
8005	1092	A003666	N	149	1.1	11.4	1.5	7	499.1	0.8	0.28	0.61	0.16	42.9	13.7	20.9	1.32	28.2	3.09	1.63	1.07	2.47	3.9
8006	1093	A003666	N	213	0.9	12.5	1.5	7	223.1	0.6	0.26	0.4	0.17	37.5	8.7	18.3	1.29	26.46	3.14	1.48	0.92	2.37	3.3
8007	1094	A003666	N	154	0.92	10.7	1.4	7	235.9	0.7	0.26	1.3	0.22	34.8	9.1	18.3	1.34	25.03	2.85	1.46	0.9	2.32	3.3
8008	1095	A003666	FD	179	0.85	9.8	2.3	6	272.2	0.7	0.23	2.78	0.27	33.3	7.6	17.2	1.16	24.95	2.71	1.35	0.81	2.23	3.1
8009	1096	A003666	N	184	0.9	9.7	1.4	7	287.6	0.6	0.25	3.38	0.31	33.7	9.6	17.2	1.24	26.49	2.8	1.44	0.91	2.24	3.2
8010	1097	A003666	N	85	1.04	11.3	2.3	4	227.4	0.8	0.28	0.36	0.06	41.5	8.1	19.4	1.37	29.13	3.48	1.86	1.2	2.38	3.7
8011	1098	A003666	N	126	0.92	10.3	0.6	6	532	0.8	0.26	2.73	0.3	34.5	11.2	16.6	1.08	24.49	2.72	1.38	0.96	2.22	3.1
8013	1099	A003666	N	158	1	11.7	1.8	8	354.7	0.9	0.27	0.52	0.1	39.4	9.4	18.9	1.25	28.01	3.8	1.81	1.1	2.42	3.5
8014	1100	A003666	N	140	0.9	10.1	1.6	8	432.8	0.7	0.25	3.12	0.26	34.7	9.5	16.6	1.28	23.8	2.64	1.34	0.97	2.2	3.3
8015	1101	A003666	N	118	0.91	11.1	1.5	6	196.6	0.8	0.24	0.34	0.12	35.5	8.9	17.4	1.35	25.79	3.22	1.48	1.06	2.35	3.3
8016	1102	A003666	SD	131	0.92	11.8	2.1	7	198.3	0.6	0.23	0.34	0.1	35.7	8.5	18.3	1.33	26.89	3.07	1.6	0.95	2.32	3.3

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
8016	1103	A003666	LD	139	0.92	12.1	2.5	6	203.9	0.7	0.25	0.35	0.13	36.6	8.9	18.2	1.35	27.86	3.18	1.69	0.98	2.39	3.3
8017	1105	A003666	N	154	0.91	10.7	2.1	8	249.6	0.7	0.23	1.52	0.23	35	9.2	17.9	1.33	24.7	2.88	1.34	0.95	2.35	3.3
8018	1106	A003666	N	163	0.95	10.1	2.2	9	391	0.6	0.21	4.08	0.26	30.7	6.7	17.4	1.21	24.2	2.7	1.26	0.85	2.17	3.4
8019	1107	A003666	N	132	1.02	10.3	2.5	10	344.9	0.8	0.21	2	0.2	32.6	7.8	21	1.24	24.36	2.8	1.34	0.79	2.34	3.6
8020	1108	A003666	FD	109	0.55	9	1.7	6	183.8	0.3	0.14	3.18	0.22	23.9	4.2	11.1	0.85	15.7	1.94	1.03	0.68	1.6	2
8021	1120	A003666	N	138	1.1	9.7	2.3	8	250.5	0.6	0.22	1.22	0.14	42.2	9.8	21.3	1.35	26.37	3.51	1.95	1.16	2.39	3.8
8022	1121	A003666	N	218	1.04	9.8	2.1	7	237.7	0.6	0.17	1.17	0.18	38.7	10.3	20.9	1.1	27.54	3.31	1.7	1.07	2.41	3.8
8023	1122	A003666	N	160	0.92	8.6	2.5	7	233.7	0.5	0.13	3.73	0.21	34.2	8.5	19	1.14	23.7	3.02	1.52	0.96	2.09	3.2
8025	1123	A003666	N	152	0.89	8.8	1.4	7	236.4	0.7	0.16	2.43	0.16	31.9	8.2	17.1	1.01	25.66	2.52	1.27	0.8	2.29	3.1
8026	1124	A003666	N	138	0.82	8.8	1.6	7	230.5	0.6	0.13	2.5	0.18	32.3	7.2	16	1.13	23.39	2.65	1.36	0.85	2.14	3
8027	1125	A003666	N	98	0.99	8.7	2.1	6	265.3	0.7	0.15	0.98	0.1	32.6	8	19	1.13	22.73	2.31	1.19	0.78	2.27	3.5
8028	1126	A003666	SD	104	1.15	9.1	2.1	7	274.3	0.6	0.15	0.96	0.12	35.4	8.5	21.5	1.28	22.84	2.45	1.24	0.8	2.33	4
8028	1127	A003666	LD	92	1.14	8.6	1.7	8	266.2	0.7	0.13	0.93	0.12	33.6	8.1	21	1.26	22	2.42	1.19	0.84	2.26	3.8
8029	1129	A003666	N	175	1.09	9	1.3	8	274.7	0.7	0.14	2.04	0.14	35.9	8.9	19.8	1.33	24.95	2.57	1.24	0.87	2.31	3.6
8030	1130	A003666	N	141	1.09	10.7	2.5	10	283.5	0.7	0.16	1.6	0.17	34.1	7	20.6	1.58	28.02	2.56	1.38	0.76	2.31	3.8
8031	1131A	A003666	N	98	1.01	7.9	1.6	10	239	0.6	0.11	4.86	0.14	27.7	7.1	17.7	1.15	22.34	2.11	1.01	0.7	2.09	3.3
8032	1131B	A003666	FD	103	0.95	6.7	1.7	6	269.4	0.4	0.18	6.09	0.15	30	5.1	16.6	1.04	18.29	2.35	1.06	0.76	1.75	3.1
8033	1132	A003666	N	120	0.9	6.6	1.6	7	255.1	0.6	0.15	6.66	0.27	28.6	7.6	16.2	0.85	18.67	2.33	1	0.65	1.67	2.8
8034	1133	A003666	N	94	0.79	7.1	1.8	5	168.1	0.5	0.18	3.1	0.16	34.7	7.9	16	0.78	13.53	2.86	1.34	0.92	2.05	2.6
8035	1134	A003666	N	155	1.16	8.9	2	7	234.6	0.8	0.22	2.51	0.19	37.2	9.4	23.3	1.23	28.02	3.04	1.41	0.97	2.51	3.9
8037	1135	A003666	N	96	1.14	7.7	1.5	7	261.7	0.6	0.21	1.4	0.21	36	8.2	21.6	1.18	21.45	2.52	1.18	0.81	2.28	3.6
8038	1136	A003666	N	159	1.16	8.7	1.9	8	233.2	0.6	0.22	2.54	0.18	35.3	8.3	21.9	1.4	26.24	2.72	1.31	0.9	2.43	3.9
8039	1137	A003666	N	167	1.14	8.8	1.5	8	244.3	0.7	0.22	1.76	0.15	35.2	8.8	20.9	1.3	26.47	2.85	1.32	0.85	2.45	3.9
8040	1138	A003666	SD	158	1.09	8	1.8	7	229.3	0.6	0.23	3.16	0.19	35.6	8.1	20.5	1.35	24.75	2.67	1.21	0.86	2.37	3.7
8040	1139	A003666	LD	168	1.09	9.1	2.1	6	234.6	0.5	0.22	3.27	0.17	35.8	8.4	20.9	1.32	25.51	2.91	1.28	0.88	2.44	3.8
8041	1141	A003666	N	149	1.2	15.2	2.6	9	237.6	0.7	0.3	1.03	0.19	39.7	9.1	23.8	1.32	34.78	3.14	1.49	0.99	3.12	4
8042	1142	A003666	N	94	0.88	8.7	1.8	10	184.2	0.7	0.16	6.75	0.12	27.9	4.1	16.4	0.92	14.54	2.14	1.03	0.67	1.97	3
8043	1143	A003666	N	64	0.67	4.7	0.7	4	190.5	0.4	0.12	2.43	0.09	30	4.7	13.4	0.85	13.75	1.91	0.86	0.63	1.48	2.3
8044	1144	A003666	FD	77	0.83	6.7	1.2	7	330.3	0.4	0.15	3.27	0.25	39.8	8	18.2	1.03	16.85	2.52	1.14	0.74	2.11	3.1
8045	1145	A003666	N	90	0.94	8.7	1.3	8	262.5	0.6	0.18	4.79	0.25	29.7	7.9	17.6	1.19	21.09	2.35	1.06	0.73	2.03	3.1
8046	1146	A003666	N	113	1.11	9.3	1.4	9	263.8	0.8	0.22	2.11	0.21	32.3	6.5	19.9	1.26	22.32	2.72	1.24	0.77	2.26	3.6
8047	1147	A003666	N	113	1.04	9.7	2.2	10	249.6	0.7	0.22	2.24	0.28	35.7	6.3	18.5	1.41	20.35	2.67	1.25	0.83	2.09	3.5
8049	1148	A003666	N	131	0.92	11.4	4.4	8	263.7	0.6	0.21	1.55	0.23	32.8	6.6	18	1.36	23.89	2.61	1.23	0.78	2.32	3.2
8050	1149	A003666	N	109	1.2	9.9	1.7	10	274.3	0.8	0.26	0.67	0.24	36.3	9.3	21.8	1.62	25.65	2.92	1.34	0.9	2.23	3.9

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
8051	1150	A003666	N	120	1.14	12.9	2	8	335.1	0.7	0.26	0.64	0.22	35.8	9.3	21	1.61	26.38	3.01	1.47	0.95	2.48	4
8052	1151	A003666	SD	126	1.06	12	3	8	356.9	0.7	0.25	0.89	0.26	35	9.4	19.5	1.58	24.19	2.92	1.36	0.92	2.4	3.7
8052	1152	A003666	LD	118	1.01	11.5	1.8	7	356	0.7	0.24	0.9	0.25	32	9.2	18.9	1.46	24.7	2.59	1.31	0.88	2.4	3.5
8053	1154	A003666	N	112	1.11	9.5	1.3	9	225.4	0.7	0.19	2.17	0.17	34.6	6.5	19.8	1.34	22.32	2.63	1.25	0.85	2.26	3.6
8054	1155	A003666	N	120	1.1	13.8	2.6	9	348.6	0.7	0.24	1.35	0.22	33.8	8.4	19.7	1.54	25.97	2.66	1.38	0.89	2.41	3.8
8055	1156	A003666	N	123	0.82	9.7	2.2	9	375.6	0.5	0.15	6.01	0.38	23.8	7.3	15	1.03	20.64	2.12	0.99	0.66	1.83	2.8
8056	1157	A003666	FD	115	0.73	10.9	2.1	7	232.6	0.4	0.16	2.71	0.37	25.3	7	14.1	1.1	20.03	2.13	1	0.68	2	2.4
8057	1158	A003666	N	154	0.75	14.6	2	8	298.9	0.5	0.23	1.54	0.29	32.7	7	15.2	1.16	25.83	2.49	1.28	0.84	2.42	2.6
8058	1159	A003666	N	123	0.84	10.6	1.2	8	307.3	0.4	0.19	3.32	0.36	26.7	7.4	16	1.21	21.93	2.15	1.1	0.72	2.01	2.8
8059	1160	A003666	N	45	1.04	8	0.8	9	65.2	0.8	0.22	8.01	0.08	22.5	8.3	17.2	1.85	16.34	1.87	0.94	0.56	1.42	3.8
8061	1161	A003666	N	135	1.34	7.5	2.2	8	264.4	1	0.25	3.9	0.12	38.7	7.8	23.1	1.52	24.52	3.23	1.69	1.05	2.37	4.6
8062	1162	A003666	N	123	1.55	8.7	2.3	10	462.5	0.7	0.23	1.04	0.08	34.8	7.5	30.6	1.86	26.05	3.08	1.46	0.94	2.87	6.1
8063	1163	A003666	N	110	1.09	10.3	2	10	196.9	0.6	0.22	1.59	0.08	34.4	8.2	18.3	1.33	21.34	2.87	1.4	0.92	2.31	3.8
8064	1164	A003666	SD	94	1.06	11.1	1.2	11	197.6	0.8	0.21	1.23	0.06	35.8	8.4	18.7	1.14	23.04	3	1.42	0.9	2.26	3.4
8064	1165	A003666	LD	102	1.1	11.6	2	11	204.9	0.9	0.23	1.27	0.06	37	8.5	19	1.22	22.83	3.12	1.36	0.98	2.33	3.6
8065	1167	A003666	N	95	0.87	9.5	1.6	9	331.5	0.6	0.23	1.89	0.18	31.9	7.3	16.4	1.24	23.61	2.59	1.17	0.76	2.12	2.9
8066	1168	A003666	N	64	0.49	8.1	1	6	60.3	0.3	0.14	7.32	0.15	16.1	5.1	10.2	1.01	12.1	1.7	0.79	0.46	1.22	1.7
8067	1169	A003666	N	71	1.14	6.3	1.2	12	327.4	0.7	0.27	1.47	0.18	39	10.7	21.1	1.47	19.59	2.91	1.29	0.86	1.8	3.7
8068	1170	A003666	FD	82	1.13	6	1.5	10	235.8	0.8	0.25	1.08	0.13	37.7	11.2	20.4	1.43	17.94	2.61	1.24	0.82	1.78	3.6
8082	1261	A004659	N	146	2.07	2.4	2.4	3	3251.7	0.9	0.13	0.99	0.22	46.6	61.7	200.2	1.47	47.15	3.86	1.9	1.72	3.82	6.3
8083	1262	A004659	N	42	2.58	1.5	1.2	1	248.4	0.8	0.06	1	0.12	31.7	74.7	260.2	0.56	36.96	2.45	1.16	1.14	4.14	5.8
8084	1263	A004659	N	109	2.16	2.1	0.8	3	358.1	0.7	0.09	1	0.18	35	60.6	228.7	0.76	45.68	1.88	0.9	0.86	4.05	6.8
8085	1264	A004659	N	78	2.11	2	1.3	4	252.4	0.8	0.09	0.86	0.14	43.3	48.7	204.2	0.9	41.05	2.51	1.04	1.26	3.86	5.5
8086	1265	A004659	N	141	1.99	2.7	1.8	5	463.4	0.7	0.1	1.37	0.11	24.9	26.4	171.2	0.88	39.88	2	0.95	0.87	3.4	5.6
8087	1266	A004659	N	41	0.61	4.8	2.1	5	148.1	0.4	0.14	1.04	0.15	23.4	13.6	9.3	1.21	25.99	1.44	0.61	0.6	0.66	2.1
8088	1267	A004659	N	48	1.14	10.1	2.5	3	164.8	0.6	0.2	0.33	0.09	36.1	13.5	24.5	1.28	34.31	3.38	1.49	1.25	2.49	4.4
8089	1268	A004659	N	87	1.86	6.2	2.5	3	176.6	0.8	0.15	0.75	0.09	33.8	27.3	121.8	1.03	38.2	2.86	1.29	1.05	3.38	5.3
8090	1269	A004659	N	93	2.03	2.6	2.4	3	307.1	0.8	0.11	0.9	0.18	35.5	65.3	179.8	0.94	51.66	2.62	1.24	1.08	3.67	6.3
8091	1270	A004659	N	72	1.64	0.3	1.8	3	278.2	0.6	0.08	6.8	0.17	71.1	47.5	177.7	0.77	39.67	1.71	0.65	0.82	3.72	4.5
8092	1271	A004659	FD	106	2.05	1.5	1.7	3	179.6	0.6	0.1	0.64	0.2	82.1	43.6	179	0.98	34.68	2.15	0.82	1.07	3.75	5.3
8093	1272	A004659	SD	77	2.04	1.6	1.8	4	180.3	0.8	0.1	0.65	0.2	74.1	43.1	179.9	0.95	35.59	2.12	0.84	1.03	3.74	5.5
8094	1273	A004659	LD	86	2.1	1.8	1.9	4	184.8	0.8	0.09	0.67	0.22	78.1	41.5	181.7	1.03	36.61	2.11	0.81	1.16	3.85	5.8
8096	1275	A004659	N	59	1.87	2.6	1.7	5	333.9	0.7	0.11	0.72	0.2	83.5	39.8	153.4	1.02	34.83	2.46	0.92	1.14	3.45	5
8097	1276	A004659	N	67	1.52	3	1.7	6	1102.1	0.6	0.1	3.12	0.13	62.6	26.1	113.7	1.06	31.6	2.18	0.88	0.95	2.91	4.5

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
8098	1277	A004659	N	65	1.12	2.4	1.6	5	484.9	0.4	0.08	5.74	0.27	42.2	12.9	61.1	0.9	22.53	2.14	0.92	0.76	2.12	3.6
8099	1278	A004659	N	97	1.86	3.3	2.2	4	500.3	0.7	0.12	0.77	0.2	68.1	34	132.7	1.11	37.16	2.4	0.98	1.05	3.38	5.3
8100	1279	A004659	N	92	1.55	5.4	3.1	2	316.9	0.8	0.17	0.58	0.14	28.8	15.3	31	1.3	42.13	3.04	1.45	0.97	2.89	6.4
8101	1280	A004659	N	109	1.73	5	3.9	4	278.3	0.9	0.18	0.49	0.07	36	23.1	38.8	1.31	51.71	3.55	1.57	1.15	2.52	6.7
8102	1281	A004659	N	56	1.73	3.5	3.8	3	225.1	0.8	0.19	0.43	0.08	40	30.8	35.7	1.28	54.36	3.53	1.61	1.21	2.66	6.8
8103	1282	A004659	N	98	1.63	4	2.8	4	1967.9	0.7	0.18	0.87	0.24	43.4	14.6	37.3	1.62	38.66	3.5	1.71	1.06	2.13	5.6
8104	1283	A004659	N	65	1.9	4.8	1.8	4	338.3	0.6	0.11	0.66	0.17	41.2	33.9	169.4	1.13	39.74	3.3	1.55	1.26	3.45	5.4
8105	1284	A004659	N	193	1.27	9	1.7	7	706	0.5	0.08	8.31	0.45	32.5	35.9	111.1	1.46	53.61	2.58	1.27	1	2.45	4
8106	1285	A004659	FD	137	1.25	9.6	2.2	5	272	0.8	0.21	0.67	0.33	52.2	15.3	25.4	1.4	31.09	5.32	2.62	1.56	2.44	4.5
8107	1286	A004659	SD	140	1.23	9.4	2.4	4	266.3	0.9	0.22	0.59	0.32	56.3	15.6	25.8	1.43	31.2	5.64	2.67	1.63	2.44	4.5
8108	1287	A004659	LD	130	1.23	9.5	2.4	5	267.3	0.9	0.21	0.59	0.33	55.4	15.5	26.1	1.45	31.36	5.54	2.7	1.61	2.43	4.5
8110	1289	A004659	N	56	2.15	1.2	1.8	3	1145.6	0.8	0.12	0.8	0.15	29.1	32.8	182.2	2.03	44.09	3.37	1.43	1.37	3.78	6.1
8111	1290	A004659	N	114	1.25	12.6	2.3	6	338.7	1	0.24	0.32	0.11	37	11.2	27.1	1.62	32.61	3.43	1.7	1.08	2.57	4.6
8112	1291	A004659	N	82	2.39	2.8	2	4	267.6	1.1	0.11	0.99	0.14	41.6	35.6	196.5	1.06	47.48	3.96	1.71	1.4	3.94	5.8
8113	1292	A004659	N	170	2.12	2.5	2	4	366.8	0.8	0.11	1.01	0.16	46.4	49.7	216	1.01	51.44	4.27	2.21	1.66	3.72	5.9
8114	1293	A004659	N	168	2.08	4.5	1.5	7	432.5	0.7	0.11	1.36	0.15	41.9	61.7	215.2	1.13	48.38	2.17	0.99	0.87	3.75	6.4
8115	1294	A004659	N	75	2.09	2.8	1.9	7	597.2	0.8	0.1	1.04	0.15	41.5	40.2	179.3	1.1	43.16	2.92	1.4	1.17	3.63	6
8116	1295	A004659	N	92	2.02	3.6	1.6	7	487.5	0.7	0.1	0.85	0.16	42.4	32.6	151	1.01	31.45	2.48	1.01	0.99	3.46	5.6
8117	1296	A004659	N	132	1.25	13.5	1.8	7	281.9	0.8	0.23	0.74	0.21	37.5	13.4	25.7	1.44	32.59	3.18	1.51	0.94	2.82	4.5
8118	1297	A004659	N	91	1.77	8.4	2.9	2	207.8	0.7	0.19	0.58	0.1	29.6	17.4	30	1.61	48.77	2.65	1.15	0.97	2.45	6.1
8119	1298	A004659	N	84	1.01	4.4	2.8	3	202.1	0.4	0.14	3.1	0.41	35.3	12.3	14.8	1.12	24.57	3.09	1.38	1.1	1.48	4.2
8120	1299	A004659	FD	76	1.07	5.5	3.5	3	174.5	0.5	0.14	1.12	0.06	32.1	5.5	16.3	1.38	23.41	2.4	1.02	0.81	1.55	4.4
8121	1300	A004659	SD	89	1.2	7.2	1.8	2	211.3	0.7	0.14	1.07	0.06	31.4	6.8	18	1.41	23.58	2.3	1.1	0.86	1.88	5.2
8122	1301	A004659	LD	84	1.12	6.9	2.1	3	209.8	0.7	0.15	1.05	0.06	30.7	6.9	16.5	1.38	22.89	2.37	1.08	0.79	1.82	4.8
8124	1303	A004659	N	133	1.04	3	1.6	3	182.5	0.4	0.09	6.3	0.64	27.9	8.4	16	1.19	21.47	2.48	1.06	0.95	1.29	4
8125	1304	A004659	N	90	1.7	29.7	2.9	4	311.2	0.7	0.21	2.03	0.12	40.7	17.3	30	1.9	47.35	3.29	1.49	1.13	2.5	5.8
8126	1305	A004659	N	155	1.64	9.3	3.2	11	345.6	1.2	0.18	4.91	0.53	36.5	32.3	37.1	0.98	52.37	4.8	2.62	1.45	5.27	7.8
8127	1306	A004659	N	135	1.01	6.8	3.4	6	197.7	0.8	0.23	2.48	0.38	28.6	16.7	19.6	1.44	66.46	2.87	1.35	1.02	1.26	3.3
8128	1307	A004659	N	124	1.58	4.1	2.6	7	186.2	1	0.14	0.92	0.27	32.8	13.5	26.5	1.2	39.41	3.64	1.96	1.24	3.92	6
8129	1308	A004659	N	133	1.53	3.1	2.8	4	137.8	0.7	0.15	0.64	0.27	26.1	16.8	29.6	1.38	38	2.45	1.21	0.81	3.38	6
8130	1309	A004659	N	113	1.3	5.4	2.2	4	201.4	0.7	0.14	0.58	0.45	21.8	18.2	32.9	1.14	34.85	2.24	1.09	0.69	3.83	5.8
8131	1310	A004659	N	109	1.23	7.9	2	4	601.7	0.8	0.11	5.25	0.48	22.1	12.8	27.3	0.97	40.47	2.42	1.29	0.79	6.68	4.6
8132	1311	A004659	N	141	1.39	3.1	2.9	3	207.6	0.7	0.17	0.69	0.21	27.1	13.5	29.3	1.34	34.99	2.34	1.12	0.81	2.17	5.4
8133	1312	A004659	N	149	1.43	2.8	3.2	5	520.8	0.5	0.13	1.56	0.26	27.3	9.7	31.9	1.12	25.28	2.38	1.11	0.76	2.24	5.1

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
8134	1313	A004659	FD	164	1.53	4.5	2.7	4	200.3	0.8	0.18	1.13	0.44	27.3	11.8	31.3	1.44	42.52	2.54	1.24	0.86	2.81	5.8
8135	1314	A004659	SD	159	1.45	4	2.6	3	210	0.6	0.17	1.01	0.4	26.9	12.2	29.6	1.37	41.66	2.73	1.28	0.85	2.74	5.5
8136	1315	A004659	LD	155	1.44	4	2.9	4	213.8	0.6	0.16	1.01	0.41	26.6	11.9	30.7	1.34	41.78	2.54	1.22	0.8	2.73	5.5
8138	1317	A004659	N	106	1.21	5.2	1.4	7	165.4	0.5	0.19	0.59	0.19	27.7	5.7	25.5	1.38	32.8	2.12	1	0.77	1.94	5.1
8139	1318	A004659	N	90	1.17	7.9	3.1	7	124.7	0.6	0.11	1.28	0.35	22	15.1	28.5	0.94	21.67	2.39	1.12	0.69	3.52	4.7
8140	1319	A004659	N	103	1.41	3.1	2.2	4	259.2	0.7	0.14	0.58	0.16	30.5	9.8	26	1.05	16.98	2.46	1.08	0.78	1.84	5.3
8141	1320	A004659	N	97	0.95	4.1	1.9	4	193.7	0.5	0.1	11.65	0.44	20.3	6.8	19.1	0.53	28.02	2.16	1.07	0.71	1.08	3.7
8142	1403	A004659	N	93	1.15	14.8	2.8	7	232.3	1.2	0.33	0.3	0.08	46.6	9.4	21.5	1.6	29.04	3.92	2.1	1.12	2.61	4.2
8143	1404	A004659	N	95	1.06	15.3	2.7	7	246	1	0.32	0.35	0.22	49.3	12.3	21.7	1.56	27.38	4.46	2.51	1.2	2.74	4.2
8144	1405	A004659	N	55	0.37	128.4	1.6	31	138.7	0.2	0.06	8.18	0.44	11.7	13	7.2	0.27	10.23	0.94	0.46	0.26	4.61	1.4
8145	1406	A004659	N	74	1.1	10.2	2.6	8	131.4	0.8	0.23	0.56	0.06	41	10.4	20.2	0.97	20.39	2.84	1.36	0.85	2.71	4
8146	1407	A004659	N	37	1.12	9.1	3.1	3	111.9	0.9	0.26	0.18	0.05	49.3	9.7	20.1	1.33	22.53	3.69	1.89	1.15	2.63	4.2
8147	1408	A004659	N	30	1	11.1	2.3	6	122.2	0.8	0.27	0.18	0.04	50.1	8.2	17.6	1.33	20.26	3.69	1.78	1.14	2.36	3.9
8148	1409	A004659	FD	27	1.01	11.7	1.5	5	123.9	1	0.27	0.14	0.05	51.9	8.2	18.9	1.41	21.25	3.96	1.94	1.17	2.35	4
8149	1410	A004659	SD	31	1	11.1	2.3	5	126.5	0.9	0.27	0.14	0.06	50.3	8.3	18.1	1.4	20.95	3.84	2	1.18	2.34	3.8
8150	1411	A004659	LD	29	0.95	11.3	1.9	4	127.9	0.8	0.27	0.15	0.05	50	8.1	16.5	1.29	20.17	4.02	1.94	1.18	2.38	3.6
8152	1413	A004659	N	48	1.09	13	1.6	7	192.1	1.1	0.32	0.28	0.08	48.8	8.3	19.6	1.61	24.71	4.71	2.25	1.35	2.31	4.1
8153	1414	A004659	N	106	0.84	11.4	2.7	9	285.6	0.6	0.27	0.55	0.24	38.4	8.3	15.2	1.3	22.29	3.19	1.62	0.92	2.07	3.1
8154	1415	A004659	N	68	0.91	12	1.9	7	197.1	0.8	0.28	0.26	0.1	41.8	6.8	17.2	1.35	20.95	3.4	1.71	0.99	2.26	3.4
8155	1416	A004659	N	87	0.95	7.2	1.5	7	156.4	0.6	0.17	0.31	0.34	43.2	8.8	20.3	1.12	19.36	2.79	1.41	0.85	1.98	3.6
8156	1417	A004659	N	51	0.69	10.9	1.5	4	124.2	0.6	0.22	0.16	0.08	38.4	4.7	13.9	1.04	19.96	3.15	1.56	0.91	1.95	2.7
8157	1418	A004659	N	35	0.91	10.2	2.1	6	164.1	0.9	0.26	0.22	0.03	41.4	6	17.6	1.36	20.86	2.93	1.37	0.89	2.02	3.5
8158	1419	A004659	N	51	1.05	12.8	2.1	6	240.6	0.8	0.35	0.3	0.03	33	5.2	18	1.37	28.46	2.33	1.22	0.76	2.24	3.8
8159	1420	A004659	N	89	1	13.7	1.2	7	294.7	0.8	0.38	0.26	0.03	39.1	6.1	17.2	1.41	28.73	3.1	1.57	0.91	2.38	3.9
8160	1421	A004659	N	66	1.01	12.3	2.3	5	111.2	1.5	0.24	0.17	0.12	49	13.8	16.4	1.21	22.01	4.94	2.38	1.33	2.31	3.6
8161	1422	A004659	N	105	0.8	11.2	1	6	146.3	0.8	0.21	0.23	0.09	42.5	5.8	14.8	1.08	22.01	3.85	2.15	1.18	2.16	3.1
8162	1423	A004659	FD	185	0.9	13.4	1.3	10	299.8	1.1	0.3	0.38	0.41	51	20.7	17	1.67	26.08	4.22	2.24	1.11	2.32	3.4
8163	1424	A004659	SD	190	0.88	14.2	1.7	9	296.9	0.9	0.32	0.39	0.34	46.3	15.3	18.3	1.64	26.89	3.88	2.03	1.01	2.47	3.3
8164	1425	A004659	LD	184	0.83	13.5	1.3	9	287.4	1.1	0.31	0.38	0.33	44.3	15.5	15.9	1.55	26.44	3.69	1.94	0.94	2.41	3.2
8166	1427	A004659	N	87	1.3	12.8	1.7	6	151.3	1.5	0.35	0.19	0.07	48.1	17.5	21	1.39	30.03	4.46	2.36	1.31	2.47	4.3
8167	1428	A004659	N	98	0.94	14.6	0.9	6	302.8	0.8	0.39	0.24	0.05	43.3	7.5	15.6	1.38	29.66	3.46	1.82	1.06	2.26	3.7
8168	1429	A004659	N	33	0.82	11.4	2.1	4	152.7	0.7	0.25	0.21	0.08	41.1	7	14.6	1.18	22.48	3.29	1.74	0.92	2.15	3.1
8169	1430	A004659	N	86	0.94	13.8	2.1	6	313	0.9	0.32	0.36	0.09	43.1	10.3	17.5	1.55	27.79	3.63	1.89	1.07	2.37	3.5
8170	1431	A004659	N	83	0.67	10.7	1.4	4	208.9	0.7	0.21	0.25	0.15	37.1	8.2	12.6	1.03	21.19	3.32	1.81	0.87	2.06	2.6

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
8171	1432	A004659	N	346	1.11	18.3	2.4	9	637	1.4	0.32	0.17	0.87	56.4	56.6	18.9	1.2	32.22	5.56	3.04	1.35	2.69	3.9
8172	1433	A004659	N	108	0.77	11.1	1	8	374.1	0.7	0.36	0.22	0.03	42.6	7.7	11.2	1.24	22.12	3.11	1.54	0.86	1.79	2.7
8173	1434	A004659	N	81	1.05	13.6	0.9	4	276	1.4	0.33	0.21	0.07	42.3	10.2	16.7	1.25	28.77	3.46	1.82	0.98	2.5	3.9
8174	1435	A004659	N	105	0.84	16.4	2.1	6	555.3	0.7	0.4	0.28	0.02	41.1	5.6	14.3	1.32	28	2.71	1.48	0.87	2.28	3.1
8175	1436	A004659	N	96	0.92	13.8	1.9	7	241.8	0.8	0.33	0.35	0.06	41.8	11.3	14.8	1.28	26.09	3.8	2	1.08	2.44	3.5
8176	1437	A004659	FD	48	0.91	12.9	1.5	6	149.9	0.9	0.34	0.3	0.06	40.8	7.1	17.5	1.22	25.67	3.35	1.79	1.15	2.38	3.6
8177	1438	A004659	SD	61	0.95	12.3	1.6	5	151.6	0.7	0.31	0.3	0.04	40.2	6.6	17.7	1.16	25.91	3.3	1.68	1.02	2.38	3.6
8178	1439	A004659	LD	66	1.1	13.3	2	7	162.6	0.7	0.33	0.31	0.05	43.7	7.4	19	1.3	27.65	3.52	1.82	1.15	2.5	4.1
8180	1441	A004659	N	91	1.13	10.2	1.3	8	153.1	1	0.24	0.34	0.09	45.4	11.4	19.8	1.26	23.98	4.02	2.23	1.17	2.65	4.4
8181	1109	A003666	N	130	0.97	8.9	2.8	8	314.4	0.6	0.22	3.35	0.16	32.2	7.6	18.3	1.15	25.67	2.51	1.31	0.89	2.17	3.4
8182	1110	A003666	N	134	0.97	9.1	1.5	10	341.4	0.5	0.21	4.01	0.25	31.8	7.7	17.8	1.18	24.61	2.37	1.25	0.81	2.1	3.5
8183	1111	A003666	N	107	1.05	9.2	2.2	10	282.7	0.6	0.24	1.47	0.13	33.8	9.2	19.5	1.53	24.1	2.86	1.38	0.84	2.21	3.7
8184	1112	A003666	SD	121	1.02	10.3	1.9	10	285.6	0.8	0.23	1.24	0.17	35.1	9.1	18.8	1.56	25.26	2.5	1.35	0.87	2.27	3.7
8184	1113	A003666	LD	106	0.92	9.5	1.1	9	276.9	0.6	0.22	1.21	0.16	31	9	17.7	1.36	23.96	2.5	1.3	0.74	2.21	3.2
8185	1115	A003666	N	133	0.93	8.2	1.3	8	317.4	0.7	0.2	4.22	0.21	29.7	6	17.3	0.99	22.63	2.34	1.24	0.8	2.02	3.3
8186	1116	A003666	N	159	0.9	9.5	0.9	10	437.2	0.7	0.21	3.34	0.2	30.1	7.2	17.1	1.22	24.51	2.59	1.23	0.77	2.09	3.2
8187	1117	A003666	N	144	1.05	9.3	2	9	308.7	0.7	0.21	0.56	0.09	34	8.1	18.9	1.13	26.21	2.47	1.29	0.8	2.13	3.6
8188	1118	A003666	N	169	0.77	9.2	1.6	8	357.8	0.5	0.2	3.31	0.24	30	8.5	15.3	1.26	23.28	2.51	1.25	0.83	2.07	2.8
8189	1119	A003666	N	111	0.9	10.8	1.4	9	447.9	0.6	0.22	1.91	0.24	35.5	11	17	1.29	26.42	2.87	1.49	0.96	2.32	3.2
8194	1442	A004659	N	89	1.21	9	1.3	11	178.5	1.1	0.24	0.34	0.21	47.3	7.9	23.6	1.24	21.08	3.24	1.86	1.04	2.3	4.3
8195	1443	A004659	N	112	1	17.2	2.6	7	808.3	1.9	0.48	0.27	0.15	76.5	6.2	13.6	1.76	39.73	6.18	3.51	1.91	2.36	3.3
8196	1444	A004659	N	95	0.72	11.3	2	8	298.6	0.5	0.21	0.33	0.13	34.1	7.4	15.5	1.02	18.77	2.57	1.39	0.8	2.09	2.8
8197	1445	A004659	N	111	0.95	14.5	1.8	10	368.9	0.9	0.37	0.5	0.07	40.4	7.2	14.9	1.35	31.44	3.41	1.73	1.04	2.3	3.5
8198	1446	A004659	N	60	1.09	13.6	1.4	7	261.6	1.3	0.36	0.27	0.04	43.1	9.4	17.1	1.38	30.3	3.93	2.2	1.22	2.44	4
8199	1447	A004659	N	84	0.74	11.2	1.7	7	154.8	0.8	0.2	0.33	0.19	46.2	7.5	15	0.89	18.15	4.4	2.61	1.36	2.56	3
8200	1448	A004659	N	103	0.84	12.4	1.2	11	143.2	0.7	0.24	0.4	0.28	45.1	12.5	15.8	1.32	22.27	2.93	1.47	0.94	2.59	3.3
8201	1449	A004659	N	118	1.06	11.9	1.2	9	308	0.8	0.26	0.45	0.14	39.4	10.6	18.9	1.14	23.03	3.11	1.7	1	2.42	4
8202	1450	A004659	N	111	0.83	12.7	2.1	10	331.5	0.7	0.27	0.54	0.27	38.6	13.9	16.3	1.27	23.45	2.84	1.52	0.89	2.38	3.2
8203	1451	A004659	FD	68	0.88	10.1	2.5	7	210.8	0.6	0.23	0.36	0.07	33.8	5.8	16.9	1.12	20.31	2.97	1.54	0.92	2.01	3.2
8204	1452	A004659	SD	74	0.83	9.9	1.4	7	210.7	0.7	0.23	0.35	0.05	35	6.2	17	1.14	20.75	2.83	1.59	0.84	1.96	3
8205	1453	A004659	LD	73	0.86	10.3	1.2	7	215.4	0.8	0.24	0.36	0.06	35.7	6.4	15.4	1.21	21.18	3.14	1.6	0.88	2.01	3.2
8207	1455	A004659	N	83	0.91	10.3	1	7	231.9	0.9	0.25	0.4	0.1	37.9	8	15.6	1.09	20.77	3.02	1.67	0.95	2.08	3.3
8208	1456	A004659	N	75	1.04	11.3	1.4	8	248.6	0.9	0.29	0.37	0.05	41.6	7.4	18.4	1.19	24.1	3.44	1.9	1.04	2.25	3.8
8209	1457	A004659	N	55	1.1	12.9	1.2	8	226	0.8	0.32	0.33	0.06	42.5	8.4	18	1.38	24.94	3.36	1.76	1.07	2.38	4.1

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
8210	1458	A004659	N	44	0.95	11.6	1.7	6	191	0.7	0.29	0.24	0.07	41.3	6.8	17.4	1.18	22.87	3.29	1.67	1.02	2.17	3.6
8211	1459	A004659	N	104	0.85	11.8	1.4	6	229.7	0.8	0.27	0.29	0.15	38.5	6.6	15.7	1.33	22.63	3.11	1.65	0.94	2.18	3.3
8212	1460	A004659	N	114	0.76	13.8	2.4	6	198.2	0.7	0.28	0.29	0.15	39.7	9.7	14.6	1.25	24.04	3.18	1.74	0.96	2.35	3.1
8213	1461	A004659	N	67	0.91	14.2	1.6	7	301.6	1.1	0.39	0.26	0.05	47.6	8.3	15.3	1.43	34.34	4.09	2.15	1.28	2.36	3.4
8214	1462	A004659	N	73	0.81	9.9	1.9	5	177.2	0.7	0.22	0.21	0.11	38.2	6.8	15.5	1.03	19.01	2.92	1.6	0.91	2.1	3.1
8215	1463	A004659	N	39	0.81	11.8	1.6	4	144.5	0.8	0.24	0.22	0.05	41.6	6	15.3	1.1	20.46	3.5	1.85	1.07	2.26	3.2
8216	1321	A004659	N	216	1.61	10.6	4.4	5	300.8	0.7	0.25	0.7	0.43	34.2	12.9	28	1.79	52.68	3.17	1.5	1.06	3.09	6.7
8217	1322	A004659	FD	187	1.6	10.7	6	5	197.9	0.7	0.17	0.72	0.38	30.6	17.9	30.1	1.4	40.71	2.84	1.31	0.91	2.16	6.5
8218	1323	A004659	SD	192	1.62	11.7	2.7	5	200.4	0.7	0.17	0.73	0.31	30.5	16.2	30.9	1.34	42.73	2.61	1.23	0.88	2.13	6.5
8219	1324	A004659	LD	190	1.6	11.3	3.3	5	199.3	0.7	0.16	0.72	0.28	29.1	15.9	29.7	1.3	42.96	2.65	1.19	0.88	2.11	6.4
8221	1325	A004659	N	122	1.47	3.6	3.1	4	260.3	0.8	0.17	0.6	0.25	30.6	11.5	29.5	1.09	32.45	2.53	1.18	0.87	2.2	5.3
8222	1326	A004659	N	134	1.24	4.9	2.6	3	202.1	0.7	0.17	0.57	0.38	43	33.8	21.6	1.29	34.21	2.76	1.27	0.98	2.24	4.6
8223	1327	A004659	N	180	1.17	6.5	2.7	6	597.1	0.7	0.21	0.56	0.38	32.7	14.8	17.6	1.54	40.75	2.38	1.09	0.98	1.64	4.2
8224	1328	A004659	N	139	1.56	5.9	2.7	5	280	1	0.18	0.65	0.4	33	17	27.6	1.27	37.11	3.12	1.54	0.96	3.2	6
8225	1329	A004659	N	174	1.57	4.3	2.8	6	170.9	0.6	0.21	0.72	0.31	30	11	29.8	1.44	46.47	2.7	1.17	0.85	2.21	5.7
8226	1330	A004659	N	145	1.28	7	3.2	10	584.4	0.9	0.22	0.64	0.46	37	9.6	21	1.38	43.15	3.62	1.77	1.23	1.77	4.5
8227	1331	A004659	N	118	1.39	5.5	2.1	5	237.9	0.7	0.17	0.63	0.47	35.1	13.6	24.8	1.25	39.33	2.91	1.36	0.98	3.01	5.3
8228	1332	A004659	N	121	1.44	2.1	3	5	238.4	0.8	0.19	0.69	0.31	32.1	11	25	1.34	37.92	2.65	1.27	0.89	2.25	5.3
8229	1333	A004659	N	108	2.08	6.2	1.5	4	1279	0.8	0.12	0.94	0.15	27	17.3	36.1	0.52	19.38	2.02	0.96	0.66	2.71	6.9
8230	1334	A004659	N	133	1.5	3	2.9	6	207.8	0.6	0.17	0.7	0.16	31.7	9.9	30.5	1.42	32.52	2.6	1.26	0.85	2.09	5.8
8231	1335	A004659	FD	112	1.15	4.9	2.9	6	314.6	0.7	0.22	0.73	0.18	27.3	12.2	21	1.44	31.27	2.11	1.05	0.7	2.14	4.1
8232	1336	A004659	SD	110	1.21	5.1	2	5	412	0.7	0.23	0.73	0.22	30	12.6	23	1.42	30.46	2.37	1.13	0.89	2.3	4.4
8232	1337	A004659	LD	106	1.09	5	2.5	5	382.7	0.7	0.21	0.69	0.19	27.7	11.8	22.7	1.34	28.88	2.09	1.08	0.8	2.17	3.9
8300	1338	A004659	N	129	1.12	7.9	2.4	7	257.6	0.8	0.2	0.47	0.1	33.1	6.7	20.1	1.05	18.41	3.18	1.53	0.98	2.19	3.9
8301	1339	A004659	N	77	0.68	3.8	< .2	4	87.9	0.4	0.11	0.28	0.06	20.2	2.8	11.8	0.93	2.55	0.81	0.34	0.3	1.36	2.5
8302	1340	A004659	N	155	1.28	9.9	1.7	3	289.1	1.2	0.23	0.25	0.09	35.9	7.4	24.7	0.94	14.34	1.59	0.65	0.47	2.4	4.3
8304	1341	A004659	N	114	1.4	7.8	2.1	4	272.2	1	0.24	0.41	0.07	43.1	7.5	23.1	0.86	13.92	3.07	1.4	1.02	2.35	4.8
3300-1		A004998		43	0.06	0.05	3.5	129	81.5			19.2	0.37	0.9	0.5	0.8	0.1	18.56				0.21	0.6
3300-2		A004998		71	0.04	0.3	2.8	140	95.6			20.58	0.21	0.6	0.2	0.6	0.09	20.32				0.2	0.4
3300-3		A004998		25	0.03	0.4	0.6	190	103.8			18.91	0.23	0.4	0.2	0.25	0.05	17.1				0.2	0.4
3300-4		A004998		21	0.03	1.2	2.1	129	83			19.9	0.19	0.3	0.1	0.25	0.06	19.14				0.18	0.3
3300-5		A004998		51	0.04	1	1.2	172	100			17.82	0.18	0.5	0.5	0.25	0.09	22.83				0.18	0.6
3301-1		A004998		46	0.03	0.9	42.9	92	99.2			20.69	0.36	0.4	0.5	0.25	0.07	17.77				0.19	0.5
3301-2		A004998		24	0.03	0.6	0.7	165	127.9			19.38	0.41	0.5	0.4	0.6	0.06	21.01				0.21	0.5

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
3301-3		A004998		62	0.03	1	72	152	108.5			20.86	0.67	0.5	0.9	0.25	0.09	20.01				0.2	0.4
3301-4		A004998		20	0.03	1	3.1	150	98.5			12.14	0.77	0.3	0.4	0.25	0.06	24.44				0.15	0.5
3301-5		A004998		61	0.02	0.6	25.2	211	135.3			13.15	0.37	0.2	0.2	0.25	0.11	38.69				0.16	0.5
3302-1		A004998		23	0.02	1	26.6	108	141.5			18.83	0.12	0.2	0.1	1.1	0.16	21.33				0.18	0.3
3302-2		A004998		63	0.01	1.1	43.1	123	87.4			12.16	0.43	0.2	0.2	0.5	0.33	41.55				0.15	0.7
3302-3		A004998		59	0.02	0.2	37.4	89	99.1			14.77	0.19	0.3	0.4	0.5	1.27	28.55				0.18	0.6
3302-4		A004998		36	0.01	0.5	66.8	112	104.2			14.97	0.16	0.2	0.4	0.25	0.11	33.93				0.17	0.5
3302-5		A004998		42	0.01	0.6	22	80	113.9			12.95	0.18	0.1	0.2	0.7	0.41	26.69				0.17	0.6
3302-6		A004998		42	0.01	0.2	20	75	106			12.67	0.16	0.2	0.1	0.6	0.38	26.43				0.14	0.5
3303-1		A004998		30	0.05	1	0.6	175	162.2			17.85	0.39	0.6	0.4	1.1	0.23	22.31				0.2	0.6
3303-2		A004998		14	0.03	0.9	0.3	116	153.2			22.75	0.34	0.4	0.3	0.6	0.19	18.75				0.23	0.5
3303-3		A004998		28	0.04	0.7	0.1	138	81.7			19.1	0.24	0.6	0.5	0.25	0.18	26.85				0.22	0.8
3303-4		A004998		46	0.12	0.5	98.9	145	71.2			23.16	0.49	1.2	0.9	1	0.12	30.16				0.1	1.1
3303-5		A004998		29	0.04	0.8	5.5	113	94.7			21.48	0.19	0.7	0.6	0.25	0.46	15.77				0.24	0.6
3304-1		A004998		36	0.13	0.05	17.1	112	113.8			15.04	0.31	1.8	1.1	1.8	0.4	26.42				0.16	1
3304-2		A004998		33	0.22	1.2	9.4	99	117.4			19.61	0.2	3.4	1.4	2.4	0.39	16.42				0.25	1
3304-3		A004998		26	0.13	0.7	22.1	110	96			19.32	0.32	1.6	0.7	1.4	0.67	18.02				0.15	1
3304-4		A004998		39	0.16	0.05	67.7	61	128.7			16.46	0.67	2.5	0.6	1.7	0.92	22.62				0.2	1
3304-5		A004998		45	0.17	0.3	37.7	117	125.5			19.21	0.53	2.5	1.3	2.3	0.98	23.09				0.19	1.2
3304-6		A004998		152	0.83	3.8	3.7	258	115			14.03	2.4	5.3	2.5	8.3	3.77	88.29				0.4	2.7
3305-1		A004998		54	0.07	0.05	55.3	179	102.8			17.67	0.25	1	0.9	0.9	0.13	18.45				0.25	0.7
3305-2		A004998		30	0.03	0.2	110.6	99	92.7			17.64	0.16	0.5	0.6	0.5	0.04	19.92				0.23	0.6
3305-3		A004998		28	0.03	0.05	67.5	102	103.4			18.09	0.59	0.4	0.7	0.25	0.07	24.59				0.21	0.7
3305-4		A004998		57	0.03	0.05	1.2	185	94.1			16.1	0.35	0.4	0.6	0.25	0.12	34.21				0.24	0.8
3305-5		A004998		72	0.05	0.05	1.6	135	92.1			17.1	0.29	0.6	0.6	0.25	0.09	24.55				0.25	0.9
3306-1		A004998		15	0.02	0.9	0.2	113	105.1			19.75	0.21	0.3	0.3	1.6	0.08	17.35				0.25	0.4
3306-2		A004998		40	0.04	0.05	4	160	129.7			22.83	0.28	0.5	0.1	1.5	0.06	20.87				0.05	0.4
3306-3		A004998		15	0.03	1.4	0.3	96	116.3			20.7	0.24	0.3	0.2	1.2	0.04	22.31				0.05	0.5
3306-4		A004998		17	0.04	0.05	0.4	220	100.6			18.53	0.27	0.5	0.2	0.5	0.17	27.69				0.08	0.4
3306-5		A004998		22	0.05	0.05	0.7	186	68.8			18.01	0.96	0.5	0.7	1.5	0.1	26.98				0.09	0.9
3307-1		A004998		15	0.03	0.9	0.7	214	121.2			17.91	0.36	0.2	0.05	1.5	0.17	24.17				0.07	0.4
3307-2		A004998		20	0.06	0.05	1.4	254	69.4			19.44	0.64	0.6	0.1	0.6	0.47	26.37				0.12	0.5
3307-3		A004998		56	0.03	0.05	1	252	111.3			19.04	0.34	0.3	0.1	3.1	0.28	25.8				0.1	0.6
3307-4		A004998		50	0.02	1.2	1	181	94.9			17.64	0.2	0.2	0.2	0.9	0.41	24.87				0.07	0.5

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
3307-5		A004998		12	0.03	1.3	1.8	217	132.5			18.11	0.35	0.3	0.05	1.6	0.17	23.8				0.06	0.4
3308-1		A004998		3	0.02	1.7	1	123	112.4			21.39	0.26	0.2	0.05	3.2	0.05	10.48				0.06	0.3
3308-2		A004998		26	0.04	0.2	2.7	162	107.2			18.25	0.39	0.3	0.1	0.25	0.09	29.16				0.09	0.5
3308-3		A004998		22	0.05	0.05	0.6	149	113			14.53	0.4	0.5	0.2	1	0.09	27.21				0.1	0.4
3308-4		A004998		280	0.12	0.05	1.7	232	281.3			10.49	0.42	0.6	2.4	2	7.57	62.85				0.12	1.2
Till2	1091	A003666	STD	219	2.47	22.7	1.7	2	106.1	1.3	6	0.14	0.36	69.2	13.3	35.4	6.92	142.09	2.82	1.16	0.79	3.08	7.6
Till3	1028	A003666	STD	1369	1	78	4.5	3	44.7	0.1	0.31	0.44	0.1	26.5	9.8	59.5	0.75	19.39	1.26	0.56	0.44	1.71	3.5
Till2	1128	A003666	STD	229	2.49	21.6	4.2	2	104.8	1.3	5.27	0.14	0.28	67.1	12.9	35.9	7.19	140.87	2.66	1.1	0.73	3.03	7.5
Till2	1055	A003666	STD	214	2.48	21.5	2.2	2	104.3	1.1	5.38	0.14	0.31	67.6	13.2	35.7	6.9	138.41	2.97	1.23	0.85	3.01	7.4
Till2	1018	A003666	STD	227	2.39	22.2	3.4	2	101.8	1.3	5.5	0.13	0.33	64.2	12.7	34.8	6.98	135.15	2.75	1.12	0.72	2.96	7.3
Till2	1211	A004659	STD	230	2.66	23.4	2.9	1	106.1	1.5	5.34	0.15	0.33	66.7	14.4	38.8	7.33	149.79	3.06	1.16	0.77	3.14	8.2
Till2	1274	A004659	STD	225	2.37	21.9	1.9	2	95.8	1.5	5.42	0.12	0.3	59	13	36.3	6.84	139.52	2.65	1.02	0.67	3.07	7.6
Till2	1316	A004659	STD	229	2.4	22.8	4.4	2	96.3	1.6	5.41	0.13	0.3	61	13.1	33.8	7.19	139.56	2.73	1.09	0.7	3.02	7.6
Till2	1379	A004659	STD	221	2.47	22	2	2	97.7	1.7	5.43	0.13	0.3	61.6	13.3	36.4	7.32	144.01	2.59	1.17	0.77	3.07	7.7
Till2	1426	A004659	STD	230	2.4	22.7	2.2	2	95.7	1.4	5.53	0.13	0.32	61.7	13.6	36.2	7.15	140.64	2.65	1.18	0.72	3.03	7.7
Till2	1476	A004659	STD	224	2.51	22.2	3	2	99.5	1.4	5.27	0.16	0.33	61.1	13.7	35.5	7.23	143.84	2.89	1.11	0.73	3.09	7.9
Till2	1517	A004660	STD	233	2.34	21.1	2.4	6	99.4	1.6	5.37	0.15	0.34	61.5	12.9	33.9	7.33	142.1	2.71	1.11	0.74	3.03	7.7
Till2	1166	A003666	STD	222	2.36	20.3	1.4	2	102.3	1.6	5.33	0.13	0.32	59.7	12.7	35.3	6.97	136.24	2.69	1.11	0.72	2.96	6.9
Till3	1068	A003666	STD	1498	1.01	78.9	5.2	4	44.4	0.3	0.32	0.44	0.11	28	10	61.3	0.75	20.25	1.22	0.54	0.46	1.76	3.7
NAT98-282	1081	A003666	STD	92	0.89	8.4	0.8	8	285.1	0.6	0.22	2.84	0.31	36.7	11.8	16.7	1.26	22.19	2.75	1.26	0.84	2.16	3.2
Till3	1104	A003666	STD	1356	1.02	86.9	17.3	4	44.9	0.4	0.33	0.46	0.1	28.2	10.4	62.5	0.77	19.62	1.17	0.59	0.44	1.8	3.8
Till3	1183	A004659	STD	1229	1.05	79.5	2.8	4	42.6	0.3	0.32	0.46	0.11	28.8	10.9	63.8	0.8	20.56	1.35	0.66	0.49	1.86	3.8
Till3	1225	A004659	STD	1390	1.14	82.3	6.7	4	47.4	0.3	0.32	0.5	0.11	29.5	11.4	70.6	0.9	21.28	1.45	0.66	0.48	1.9	4.2
Till3	1288	A004659	STD	1289	1.03	77.6	3.6	4	43.1	0.3	0.31	0.44	0.1	28.2	10.1	63.3	0.78	19.69	1.27	0.57	0.46	1.83	3.8
Till3	1351	A004659	STD	1363	1.03	80.8	32	3	49.8	0.3	0.34	0.45	0.1	28.6	10.8	64.5	0.73	20.72	1.4	0.6	0.49	1.88	3.9
Till3	1393	A004659	STD	1267	1.02	82.1	4.6	3	41.5	0.3	0.31	0.43	0.08	25.6	10.3	63.1	0.75	20.25	1.09	0.6	0.45	1.83	3.7
Till3	1440	A004659	STD	1408	1.05	84.3	17.4	4	46.4	0.3	0.34	0.45	0.1	28.5	11.1	64	0.75	20.24	1.28	0.67	0.47	1.9	4
Till3	1489	A004659	STD	1311	1.07	78.3	6.9	5	42.9	0.3	0.31	0.47	0.08	27.1	10.8	65.1	0.82	20.06	1.35	0.62	0.47	1.86	4
Till3	1140	A003666	STD	1249	1.09	76.7	2.9	4	47.3	0.4	0.31	0.5	0.09	29.2	10.1	65.1	0.83	19.71	1.34	0.65	0.49	1.83	3.8
NAT98-282	1005	A003666	STD	94	0.93	9.4	1.3	9	295.8	0.6	0.24	3.02	0.31	38	12.4	17.2	1.36	23.16	2.67	1.26	0.87	2.26	3.1
NAT98-282	1197	A004659	STD	87	0.95	9.6	1.2	9	280	0.5	0.2	2.74	0.26	33.5	13	18.5	1.23	22.25	2.48	1.15	0.75	2.16	3.4
NAT98-282	1239	A004659	STD	99	1.03	10.2	1.3	8	286	0.6	0.23	2.78	0.27	36.5	12.3	19	1.51	21.99	2.6	1.14	0.79	2.22	3.6

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Acme ID	Acme File	Sample Type (Acme Batch)	Ag_1F_ppb	Al_1F_%	As_1F_ppm	Au_1F_ppb	B_1F_ppm	Ba_1F_ppm	Be_1F_ppm	Bi_1F_ppm	Ca_1F_%	Cd_1F_ppm	Ce_1F_ppm	Co_1F_ppm	Cr_1F_ppm	Cs_1F_ppm	Cu_1F_ppm	Dy_1F_ppm	Er_1F_ppm	Eu_1F_ppm	Fe_1F_%	Ga_1F_ppm
NAT98-282	1302	A004659	STD	91	0.92	9.5	1.6	8	274.2	0.5	0.21	2.69	0.26	36	13.2	17.8	1.29	22.38	2.58	1.15	0.75	2.13	3.2
NAT98-282	1365	A004659	STD	96	0.82	10	1.3	6	308.3	0.6	0.22	2.74	0.28	34.1	12.9	16.9	1.21	21.61	2.57	1.18	0.8	2.14	3
NAT98-282	1412	A004659	STD	90	0.99	9.6	1.9	9	275.8	0.7	0.21	2.7	0.26	33.6	13.5	18.8	1.33	21.62	2.34	1.2	0.71	2.16	3.5
NAT98-282	1454	A004659	STD	92	0.83	9.8	1.2	8	286.2	0.6	0.21	2.73	0.28	32.4	12.9	18.1	1.1	21.5	2.26	1.23	0.77	2.11	3.1
NAT98-282	1504	A004660	STD	97	0.91	9	2	13	271.1	0.7	0.23	2.56	0.26	36	12.6	16.9	1.48	22.84	2.71	1.19	0.78	2.2	3.2
NAT98-282	1153	A003666	STD	92	1.13	9	1.8	9	300.7	0.7	0.23	2.98	0.29	37.4	11.2	20.2	1.44	22.89	2.51	1.19	0.82	2.36	3.8
NAT98-282	1114	A003666	STD	93	0.9	8.9	2.6	10	294.8	0.5	0.22	2.91	0.27	36.5	11.9	17.1	1.37	22.69	2.6	1.25	0.83	2.23	3.3
NAT98-282	1042	A003666	STD	91	0.96	9.1	1.9	9	291.3	0.8	0.24	2.9	0.26	38.3	12.4	17.8	1.37	22.43	2.78	1.27	0.87	2.23	3.3

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
1001		0.1	0.01	2.5			3.95	0.25	0.3			1.57	437	0.22	0.003	0.09		2	0.434	2.52		72.6	0.5	0.14
1002		0.05	0.01	2.5			4.11	0.5	0.3			1.09	360	0.23	0.004	0.09		2.7	0.497	2.63		69.9	0.5	0.13
1003		0.05	0.01	2.5			4.18	0.6	0.6			1.18	468	0.26	0.005	0.09		3.4	0.614	2.2		68.4	0.5	0.15
1004		0.05	0.01	2.5			4.29	0.5	0.7			1.15	417	0.3	0.003	0.1		3.8	0.685	2.21		65.2	0.5	0.17
1005		0.05	0.01	2.5			2.95	0.25	1.3			1.1	468	0.32	0.002	0.07		1.9	0.724	2.53		30.5	0.5	0.13
1006		0.1	0.01	2.5			4.12	0.25	0.7			1.18	335	0.65	0.003	0.08		3.2	0.497	2.1		65.4	0.5	0.19
1007		0.05	0.01	2.5			4.25	0.25	0.8			1.37	329	0.34	0.003	0.08		5.9	0.54	3.89		32.4	0.5	0.23
1008		0.05	0.01	5			3.54	0.25	0.3			1.17	440	0.33	0.002	0.08		3.7	0.569	1.73		55.7	0.5	0.21
1009		0.05	0.01	2.5			2.82	0.6	0.2			0.8	304	0.37	0.002	0.09		2.8	0.39	3.36		35.3	0.5	0.19
1010		0.05	0.01	2.5			5.72	0.25	0.3			1.2	455	0.48	0.004	0.09		4.8	0.555	7.58		80.1	0.5	0.28
1011		0.05	0.01	2.5			3.67	0.25	0.2			1.28	476	0.26	0.002	0.07		1.2	0.38	1.23		58.4	0.5	0.13
1013		0.05	0.01	2.5			4.57	0.25	0.5			1.53	419	0.35	0.009	0.09		1.2	0.515	3.16		101.4	0.5	0.26
1014		0.05	0.01	2.5			3.74	0.5	0.2			1.11	506	0.22	0.003	0.09		1.9	0.575	1.66		55.8	0.5	0.18
1015		0.1	0.01	2.5			6.29	0.25	0.1			1.52	396	0.45	0.004	0.08		2.8	0.777	1.35		31.5	0.5	0.25
1016		0.05	0.01	2.5			4.89	0.25	0.2			1.41	318	0.38	0.005	0.08		1.2	0.704	1.74		14.7	0.5	0.19
1017		0.05	0.01	2.5			3.76	0.25	0.5			1.13	341	0.42	0.002	0.09		2.2	0.472	1.88		37	0.5	0.19
1018		0.05	0.01	2.5			4.51	0.25	0.3			1.33	381	0.3	0.003	0.1		3.3	0.496	2.23		72.6	0.5	0.27
1019		0.05	0.01	2.5			3.37	0.25	0.1			1.2	558	0.23	0.002	0.07		2.1	0.399	1.08		58.5	0.5	0.16
1020		0.05	0.01	2.5			4.16	0.25	0.2			1.26	379	0.27	0.002	0.07		5.5	0.513	1.4		61.3	0.5	0.17
1181		0.05	0.01	2.5			2.83	0.25	2.3			1.31	308	0.78	0.003	0.07		3.6	0.44	1.88		41.5	0.5	0.18
1182		0.05	0.01	2.5			3.14	0.5	0.5			1.6	613	0.96	0.004	0.07		4.7	0.417	2.75		32	0.5	0.21
1183		0.05	0.01	2.5			3.96	0.25	0.3			1.25	279	1.46	0.004	0.08		7.1	0.437	3.32		31	0.5	0.23
1184		0.05	0.01	6			3.91	0.25	0.2			1.43	331	1.33	0.003	0.08		5.6	0.504	4.92		32.3	0.5	0.23
1185		0.1	0.01	2.5			4.18	0.25	0.6			1.44	376	4.04	0.006	0.1		21.2	0.591	7.84		42.3	0.5	0.24
1186		0.1	0.01	2.5			3.56	0.25	0.7			1.27	588	6.58	0.01	0.12		39.5	0.572	47.2		41.9	0.5	0.19
1187		0.1	0.01	2.5			5.74	0.25	0.7			1.64	502	1.07	0.004	0.1		5.8	0.555	6.37		108	0.5	0.23
1188		0.1	0.01	2.5			4.3	0.25	0.1			1.21	358	0.9	0.003	0.08		4.3	0.45	1.79		53.3	0.5	0.19
1189		0.1	0.01	2.5			6.06	0.25	0.2			1.51	456	0.81	0.005	0.09		5.2	0.649	10.7		46.2	0.5	0.29
2001		0.1	0.01	2.5			5.37	1.4	2.7			0.78	462	0.44	0.01	0.1		13	0.964	12.43		50.9	0.5	0.24
2002		0.1	0.01	2.5			8.79	0.8	1.2			1.04	548	0.57	0.016	0.07		24.6	1.753	7.79		93.7	0.5	0.54
2003		0.1	0.01	2.5			10.35	1	0.8			1.11	304	0.74	0.013	0.08		13.6	2.381	6.66		61.3	0.5	0.57
2004		0.1	0.01	2.5			5.92	1.4	0.6			0.75	321	0.46	0.01	0.07		7.7	1.429	8.04		49.3	0.5	0.79
2005		0.1	0.01	2.5			7.81	1.5	1			1.24	678	0.64	0.01	0.07		33.3	1.766	6.82		67.1	0.5	0.83
2006		0.1	0.01	2.5			10.75	1.3	0.6			1.08	750	0.69	0.007	0.06		33.5	1.983	5.74		94.7	0.5	0.81
2007		0.05	0.01	2.5			8.75	0.9	0.8			0.97	426	0.58	0.008	0.07		20.2	1.785	3.06		39.2	0.5	0.79
2008		0.1	0.01	2.5			8.58	1.1	0.4			0.89	1073	0.53	0.006	0.05		22.9	1.823	2.93		60	0.5	0.65
2009		0.05	0.01	2.5			7.5	1.2	0.4			1.04	613	0.65	0.006	0.07		38.4	1.716	3.03		60.5	0.5	0.66

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
2010		0.1	0.01	2.5			11.32	0.9	1.1			1.06	1012	1.29	0.012	0.06		60.2	2.197	3.36		124.8	0.5	1.02
2011		0.1	0.01	2.5			13.56	0.9	13.4			1.16	1126	1.28	0.008	0.04		57.5	2.554	2.26		141.1	0.5	0.81
2013		0.1	0.01	2.5			8.55	0.7	0.7			1.19	817	1.03	0.02	0.07		13.5	1.691	12.62		61.7	0.5	0.56
2014		0.05	0.01	2.5			8.28	1.2	0.5			1.08	784	0.59	0.015	0.05		29.7	1.454	4.28		98.1	0.5	0.71
2015		0.1	0.01	2.5			9.43	0.6	0.2			1.16	484	1.17	0.024	0.07		27.9	2.067	2.76		57.3	0.5	0.78
2016		0.1	0.01	2.5			9.9	0.6	0.1			1.65	556	0.91	0.03	0.07		39.3	2.459	2.59		45.1	0.5	0.68
2017		0.05	0.01	2.5			9.07	0.9	0.3			1.21	690	0.82	0.004	0.05		38.5	1.941	2.05		57.8	0.5	0.73
2018		0.1	0.01	2.5			9.21	0.9	1			1.4	941	1.03	0.006	0.06		27.7	1.96	2.79		79.5	2	0.54
2019		0.05	0.01	2.5			7.77	1.2	0.3			0.96	828	0.46	0.006	0.05		45.7	1.421	2.23		60.7	0.5	0.44
2020		0.1	0.01	2.5			9.59	1.7	0.3			1.15	1590	1.13	0.005	0.06		45.3	1.923	2.57		72.4	0.5	0.56
2181		0.1	0.01	2.5			10.05	0.5	2.4			1.32	658	1.6	0.007	0.06		29.2	2.062	8.42		98	2	0.58
2182		0.1	0.01	2.5			13.54	1.9	0.4			1.79	2065	1.6	0.01	0.06		23.9	2.265	4.93		90.6	1	0.83
2183		0.1	0.01	2.5			7.96	0.25	0.7			1.13	870	1.08	0.009	0.08		8.5	1.437	3.84		58.6	0.5	0.81
2184		0.1	0.01	2.5			5.88	0.25	1.2			0.92	650	0.78	0.007	0.07		4.8	0.985	3.21		45.8	0.5	0.55
2185		0.05	0.01	2.5			6.95	0.7	0.4			0.86	492	0.69	0.004	0.08		8.6	1.154	3.01		51.1	0.5	0.55
2186		0.1	0.01	2.5			8.78	0.9	0.9			1.2	571	0.58	0.009	0.07		16.7	1.524	4.42		63.3	0.5	0.64
2187		0.1	0.01	2.5			8.99	1.2	1.1			1.5	755	1.04	0.01	0.06		23.7	1.8	2.91		74.6	1	0.57
2188		0.1	0.01	2.5			8.76	1.4	1.7			1.24	895	1.08	0.013	0.08		27.3	1.786	5		63.6	0.5	0.65
2189		0.1	0.01	2.5			11.31	0.8	0.3			1.14	1176	1.98	0.011	0.07		37.9	2.029	3.7		76.7	0.5	0.95
3045		0.1	0.01	2.5			7.35	0.25	15.6			1.3	2446	0.26	0.002	0.06		2	1.672	2.3		90.7	35	0.88
3046		0.05	0.01	2.5			9.3	0.25	22.1			0.79	6627	0.32	0.001	0.05		1.2	0.852	0.82		50.6	38	2.25
3047		0.05	0.01	8			6.84	0.25	49.4			1.3	7159	0.64	0.001	0.09		1.5	1.386	1.23		33	23	1.16
3049		0.1	0.01	2.5			11.59	0.25	31.7			1.68	10559	0.37	0.002	0.06		2.6	2.417	1.47		48.1	6	1.95
3050		0.1	0.01	7			11.89	0.6	10.4			1.9	18943	0.4	0.006	0.1		2.3	1.918	207.99		99.1	11	2.09
3051		0.1	0.01	2.5			12.38	0.6	2.9			1.76	25734	0.56	0.005	0.06		6.6	1.968	4.81		74.9	16	1.74
3052		0.1	0.01	7			9.53	0.5	2.8			1.67	27287	0.59	0.005	0.09		6	1.463	5.98		48.2	12	1.57
3053		0.1	0.01	10			8.43	0.25	3.3			1.87	23985	0.37	0.003	0.11		5.2	1.371	6.5		51.6	12	0.9
3054		0.1	0.01	5			9.3	0.25	9.6			1.25	2012	0.54	0.002	0.08		4.4	1.623	3.57		94.3	7	0.55
3055		0.1	0.01	9			8.99	0.25	15.6			1.14	7224	0.36	0.003	0.1		5.9	1.993	4.64		74	84	0.63
3056		0.1	0.01	2.5			7.96	0.25	11.7			1.16	11025	0.42	0.003	0.05		8.5	1.891	6.05		71.4	50	0.59
3057		0.1	0.01	12			10.38	0.5	12.2			1.32	19892	0.44	0.022	0.06		21.9	2.269	10.08		93.4	52	0.8
3058		0.1	0.01	6			8.25	0.25	7.2			1.12	6178	0.45	0.004	0.07		6.9	1.909	1.81		38	18	0.55
3059		0.1	0.01	5			7.25	0.25	11.6			0.99	3734	0.52	0.003	0.05		5.5	1.633	26.63		84.1	47	0.66
3061		0.1	0.02	11			11.16	0.25	26.7			1.46	8138	0.55	0.008	0.09		15.3	2.835	341.98		85.2	74	0.67
3062		0.1	0.01	2.5			5.91	0.25	9			1.34	4143	0.28	0.004	0.05		5.3	1.668	3.65		14.5	32	0.48
3063		0.05	0.01	2.5			3.73	0.25	13.5			0.86	5955	0.24	0.001	0.05		3	1.115	0.97		22.1	36	0.41
3064		0.05	0.01	6			3.89	0.25	13.6			0.91	5343	0.25	0.002	0.06		2.1	1.065	0.98		25.3	23	0.31

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
3065		0.05	0.01	7			5.27	0.25	4.4			0.85	4116	0.26	0.002	0.04		4.7	1.253	1.25		15.1	9	0.3
3066		0.05	0.01	2.5			5.24	0.25	3.3			0.85	7513	0.18	0.002	0.05		5.3	1.086	0.98		34	23	0.51
3067		0.05	0.01	2.5			4.62	0.25	3.1			1.13	3801	0.34	0.002	0.05		13.3	1.411	1.34		18.7	22	0.39
3068		0.1	0.01	2.5			9.8	0.25	4			1.9	5571	0.33	0.002	0.06		8.7	2.118	1.33		70.2	4	0.49
3142		0.1	0.01	2.5			7.37	1.3	6.7			1.22	9966	0.76	0.005	0.07		30.9	1.987	2.61		61.4	0.5	0.47
3143		0.1	0.01	7			8.25	0.25	5.7			1.23	6019	0.28	0.002	0.05		12.4	2.133	1.11		59	4	0.5
3144		0.1	0.01	6			7.81	0.25	98.9			1.7	3521	1.03	0.003	0.06		4.4	2.164	1.72		23	7	0.83
3145		0.1	0.01	2.5			7.85	0.25	25.9			1.15	4170	1.97	0.002	0.04		4.3	1.919	1.74		17	11	0.51
3146		0.1	0.01	2.5			5.89	0.25	2.9			0.64	4709	0.28	0.002	0.08		19.2	1.488	2.3		42.6	4	0.47
3147		0.05	0.01	2.5			5.33	0.25	5.2			1.06	4293	0.18	0.002	0.05		11.8	1.454	12.26		30.5	1	0.38
3148		0.1	0.01	2.5			7.47	0.25	8.9			1.04	8282	0.29	0.003	0.05		28	1.712	27.38		79.9	0.5	0.68
3149		0.1	0.01	2.5			7.31	0.25	8.1			1.15	8173	0.29	0.002	0.05		30	1.818	1.05		80.7	0.5	0.76
3152		0.1	0.01	8			6.67	0.25	2.5			1.39	28485	0.38	0.003	0.05		24.8	1.731	1.88		43.8	9	0.86
3153		0.05	0.01	2.5			7.7	0.25	6.3			1.68	18681	0.44	0.003	0.08		3.8	2.065	2.2		79.5	14	0.73
3154		0.1	0.01	2.5			7.35	0.5	4.6			1.23	27789	0.81	0.004	0.07		20.5	2.171	9.4		77.8	15	1.41
3155		0.1	0.01	2.5			9.01	0.25	27.3			1.14	30538	0.63	0.004	0.09		6.8	2.129	2.7		42.4	55	1.19
3156		0.1	0.01	2.5			8.64	0.25	5.1			1.17	42769	0.94	0.003	0.07		36.6	3.044	3.36		40.1	9	1.19
3157		0.1	0.01	2.5			9.23	0.25	5.2			1.02	38461	0.78	0.004	0.08		47	2.51	4.28		56.7	7	1.02
3158		0.1	0.01	2.5			7.75	0.25	4.3			0.72	58293	1.02	0.006	0.05		11.2	2.194	2.41		60.8	8	0.68
3159		0.05	0.01	6			8.29	0.25	5			1.2	54098	0.92	0.004	0.05		51	2.139	2.63		75	11	0.95
3160		0.1	0.01	2.5			8.71	0.5	5.8			1.15	52865	0.89	0.013	0.08		46.6	2.65	41.68		99.6	10	1.39
3161		0.1	0.01	2.5			9.72	0.6	7.2			1.4	59664	1.05	0.009	0.05		66.4	2.098	49.87		68.7	21	1.62
3162		0.1	0.01	2.5			10.21	0.25	3.6			1.44	56594	0.85	0.004	0.06		70.4	3.016	1.82		136.6	8	1.12
3163		0.1	0.01	2.5			11.1	0.25	4			1.76	60124	0.9	0.004	0.05		82.7	3.388	1.6		171.3	9	1.39
3166		0.1	0.01	2.5			9.63	0.25	5.7			1.41	48474	0.7	0.005	0.04		43.7	2.226	1.55		115.8	11	0.96
3167		0.05	0.01	2.5			6.44	0.25	3.1			1.36	12913	0.34	0.004	0.04		26.4	2.079	1.42		75.2	3	0.54
3168		0.05	0.01	2.5			6.56	0.25	5.2			0.96	6703	0.32	0.003	0.06		26.9	1.867	1.28		37.9	0.5	0.46
3169		0.1	0.01	2.5			12.27	0.25	3.7			1.46	15060	0.67	0.005	0.06		46.2	2.85	1.48		55.9	2	0.91
3170		0.05	0.01	2.5			6.31	0.25	20.5			1	10125	0.27	0.003	0.06		15	2.21	1.64		35.1	5	0.64
3171		0.1	0.01	2.5			10.55	0.25	30.6			1.2	20568	0.45	0.003	0.05		20.7	2.64	1.63		137.5	5	0.84
3172		0.1	0.01	2.5			8.81	0.25	9.8			1.28	14973	0.28	0.003	0.03		40.9	2.187	1.28		107.7	5	0.63
3173		0.1	0.01	2.5			10.55	0.25	5.3			1.84	61323	0.88	0.006	0.04		47.4	2.772	2.54		140	8	1.16
3174		0.1	0.01	2.5			9.99	0.25	9.4			1.87	33105	0.66	0.006	0.04		72.9	3.156	2.16		74.9	2	1.21
3175		0.1	0.01	2.5			14.5	0.25	13			1.43	14005	0.57	0.006	0.04		53	3.026	1.89		125.7	10	1.08
3176		0.05	0.01	2.5			5.74	0.25	15.5			0.96	9293	0.28	0.003	0.04		10.3	1.77	1.29		68.4	7	0.75
3177		0.05	0.01	2.5			6.1	0.25	14.9			0.93	10040	0.3	0.003	0.05		12.1	1.88	0.96		67.3	5	0.78
3180		0.05	0.01	2.5			6.34	0.25	8.4			0.75	9537	0.25	0.003	0.03		7.6	1.79	1.28		63.1	7	0.56

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
3194		0.1	0.01	2.5			10.14	0.25	5.6			1.85	38500	0.72	0.005	0.04		10.5	2.693	2.1		84.7	10	1
3195		0.05	0.01	2.5			6.84	0.25	2.4			1.17	25151	0.52	0.002	0.04		35.8	2.172	1.26		70.6	9	0.89
3196		0.1	0.01	2.5			7.53	0.25	45.8			1.37	23308	0.54	0.003	0.05		7.1	2.615	1.54		31.9	13	1.19
3197		0.05	0.01	2.5			7.87	0.25	22.5			1.35	27517	0.51	0.004	0.05		0.05	1.983	1.89		53.3	19	0.97
3198		0.05	0.01	5			4.53	0.5	5.5			0.95	42756	0.65	0.019	0.04		21.9	1.405	2.14		129.9	25	1.05
4001	1.31	< .1	0.14	43	0.16	< .02	0.06	6.4	8.4		0.05	0.26	102	1.24	0.01	0.62	5.91	17.8	0.079	5.85	1.5	5.3	9	1.42
4002	0.22	< .1	0.05	52	0.03	< .02	0.01	0.8	0.6		< .02	0.2	88	1.86	0.012	0.14	0.86	7.3	0.057	0.78	0.2	0.7	15	2.52
4003	0.4	< .1	0.07	50	0.06	< .02	0.02	1.7	1.6		0.02	0.28	161	2.08	0.011	0.19	1.81	10.1	0.067	1.49	0.45	1.6	21	3.07
4004	1.09	< .1	0.12	67	0.15	< .02	0.06	4.4	6.3		0.05	0.32	175	1.43	0.011	0.38	4.53	16.2	0.081	4.24	1.14	4.3	19	2.05
4005	0.28	0.1	0.06	42	0.04	< .02	0.01	1	0.3		0.02	0.22	28	3.19	0.012	0.13	1.03	11.4	0.056	0.67	0.23	0.4	21	2.31
4006	1.2	< .1	0.21	50	0.17	< .02	0.05	4.8	5		0.05	0.24	68	2.88	0.013	0.33	4.81	24.7	0.121	3.83	1.21	4.1	15	1.85
4007	0.47	0.1	0.1	59	0.07	< .02	0.02	1.7	1.1		0.02	0.17	126	2.08	0.007	0.2	1.77	10.4	0.051	1.96	0.46	1.3	12	1.7
4008	1.05	< .1	0.13	54	0.15	< .02	0.04	4.5	4.2		0.04	0.23	64	2.74	0.01	0.46	4.44	16.6	0.066	3.73	1.14	3.9	13	1.63
4009	0.14	< .1	0.02	42	0.02	< .02	0.01	0.6	0.2		< .02	0.21	352	1.72	0.011	0.09	0.56	6.9	0.054	0.52	0.13	0.4	17	2.74
4010	0.22	< .1	0.03	44	0.03	< .02	0.01	0.9	0.8		< .02	0.22	187	1.3	0.019	0.12	1.09	6.3	0.052	0.89	0.24	0.8	19	2.04
4011	0.64	< .1	0.09	39	0.09	< .02	0.04	3.1	4.6		0.03	0.41	424	8.12	0.091	0.23	2.93	7	0.067	2.34	0.79	2.7	14	2.51
4011	0.68	0.1	0.09	37	0.09	< .02	0.04	3.2	4.7		0.03	0.4	413	8.38	0.092	0.22	3.3	7.3	0.07	2.49	0.8	3	11	2.64
4013	0.37	< .1	0.05	31	0.05	< .02	0.03	1.6	2.4		0.02	0.36	163	1.64	0.102	0.15	1.6	6.7	0.052	1.59	0.39	1.5	13	2.29
4014	0.45	< .1	0.07	60	0.06	< .02	0.04	1.9	2.2		0.02	0.28	626	3.11	0.052	0.16	1.9	13.3	0.073	1.86	0.49	1.9	16	3.29
4015	0.84	0.1	0.17	50	0.12	< .02	0.05	3.8	6.6		0.04	0.27	372	3.65	0.062	0.34	3.81	17.2	0.066	3.56	0.97	3.8	24	4.89
4016	0.43	< .1	0.11	55	0.05	< .02	0.04	1.9	3.1		0.02	0.27	453	3.02	0.055	0.19	1.85	8.1	0.061	1.71	0.46	2.2	29	4.94
4017	0.8	0.1	0.13	43	0.12	< .02	0.04	3.7	5.1		0.04	0.34	463	1.23	0.064	0.4	3.65	14.6	0.086	3.18	0.93	3	16	2.34
4018	0.87	0.1	0.14	48	0.13	< .02	0.04	4	4.5		0.04	0.35	464	1.37	0.062	0.41	3.63	15.6	0.087	3.21	0.95	3.2	16	2.35
4019	0.28	0.1	0.03	42	0.04	< .02	0.02	1.3	1.2		< .02	0.26	515	1.04	0.02	0.11	1.22	7.8	0.061	1.01	0.32	1.4	20	2.76
4020	0.11	< .1	0.02	66	0.02	< .02	0.01	0.5	0.4		< .02	0.25	596	2.34	0.032	0.09	0.53	5.9	0.07	0.46	0.12	0.4	41	4.01
4021	0.16	< .1	0.04	57	0.03	< .02	0.02	0.8	0.5		< .02	0.29	430	1.87	0.027	0.09	0.73	7.7	0.08	0.55	0.18	0.6	31	3.35
4022	0.14	< .1	0.02	33	0.02	< .02	0.01	0.7	0.6		< .02	0.26	791	1.56	0.044	0.08	0.64	7.8	0.107	0.54	0.15	0.5	56	3.39
4023	0.17	0.1	0.02	34	0.02	< .02	0.01	0.7	0.7		< .02	0.3	333	2.1	0.03	0.13	0.74	11.2	0.077	0.67	0.18	0.6	63	3
4023	0.25	< .1	0.03	44	0.03	< .02	0.02	1.1	1.6		< .02	0.29	308	0.92	0.029	0.1	1.03	7.7	0.081	1.07	0.27	1.1	33	2.83
4025	0.78	0.1	0.09	45	0.11	< .02	0.04	3.6	3.4		0.03	0.3	249	1.59	0.032	0.26	3.37	10.7	0.071	3.06	0.86	4.7	29	2.92
4026	1.08	< .1	0.14	57	0.15	< .02	0.06	4.7	6.4		0.04	0.33	174	2.36	0.043	0.29	4.74	15.2	0.063	4.35	1.15	5.3	36	3
5001	2.84	< .1	0.12	58	0.37	0.02	0.09	11.9	11.7		0.1	0.63	103	1.9	0.009	0.6	11.71	20.7	0.069	10.64	3.01	6.9	3	0.43
5002	2.57	< .1	0.17	48	0.33	< .02	0.1	10.5	14.3		0.1	0.51	217	2.96	0.017	0.52	10.39	26.9	0.106	9.97	2.74	7.1	4	0.51
5003	2.8	0.1	0.13	91	0.37	< .02	0.1	11.4	11.4		0.11	0.6	165	4.26	0.01	0.51	11.58	25.8	0.091	10.42	2.93	7.3	4	0.75
5004	2.6	0.1	0.11	63	0.34	< .02	0.09	10.4	10.4		0.1	0.58	189	3.16	0.01	0.44	10.03	23.1	0.089	9.3	2.65	5.7	4	0.51
5005	3.25	< .1	0.21	79	0.42	0.02	0.14	13.8	14.5		0.12	0.57	97	4.09	0.01	0.54	13.53	33.6	0.089	12.35	3.52	10	4	0.41
5006	4.05	0.1	0.2	73	0.52	0.03	0.14	17.7	18.9		0.15	0.31	103	4.53	0.011	0.61	16.5	35.7	0.104	13.78	4.36	9.8	2	0.28

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
5007	3.57	0.1	0.13	63	0.47	0.02	0.13	16.4	19.5		0.13	0.32	111	2.01	0.01	0.67	15.55	27.4	0.081	12.83	4.01	10.9	5	0.3
5008	3.29	0.1	0.12	50	0.45	0.02	0.12	14.9	13.6		0.13	0.45	162	2.44	0.011	0.61	14.17	34.6	0.121	12.02	3.64	9.2	3	0.33
5009	3.54	0.1	0.17	83	0.45	0.02	0.14	13.8	17.3		0.15	0.58	3839	2.58	0.011	0.35	13.69	33.8	0.079	12.92	3.48	11.6	4	0.34
5010	2.93	0.1	0.17	69	0.36	0.02	0.11	11.9	11.6		0.11	0.65	276	1.66	0.012	0.41	11.69	22.1	0.081	10.21	3.07	8.1	4	0.25
5011	2.97	0.1	0.14	62	0.38	0.02	0.12	12.5	12.3		0.12	0.66	277	1.77	0.012	0.43	12.22	22.3	0.079	10.47	3.17	8.8	1	0.25
5011	2.88	< .1	0.19	75	0.35	0.02	0.16	12.1	19.1		0.11	0.88	344	25.74	0.047	0.57	11.59	21.5	0.077	11.79	3.08	10.5	5	0.68
5013	3.07	0.1	0.15	60	0.38	< .02	0.14	12.6	15.3		0.12	0.84	158	4.15	0.047	0.6	12.06	22.7	0.082	10.97	3.11	9.8	< 1	0.56
5014	2.76	< .1	0.14	91	0.37	< .02	0.12	11.3	12.5		0.11	0.65	317	2.27	0.021	0.51	11.35	23.7	0.073	10.72	2.94	8.7	4	1
5015	2.28	< .1	0.13	85	0.29	< .02	0.14	9.9	13.5		0.09	0.53	397	4.33	0.037	0.68	8.59	28	0.068	10.64	2.37	9.5	10	2.11
5016	2.59	0.1	0.11	82	0.33	< .02	0.15	10.6	15.2		0.09	0.52	410	3.38	0.033	0.81	9.66	27.9	0.082	10.11	2.63	10.6	8	1.59
5017	2.69	< .1	0.12	67	0.36	0.02	0.13	11.4	15.1		0.12	0.46	428	1.63	0.035	0.61	10.63	25.3	0.1	9.98	2.84	9.7	6	0.64
5018	2.89	0.1	0.11	100	0.37	< .02	0.12	12.2	13		0.11	0.71	437	2.29	0.014	0.53	11.55	28.9	0.092	11.57	3.09	9.2	2	0.59
5019	2.99	< .1	0.2	71	0.4	0.02	0.14	12.9	16.8		0.12	0.71	250	3.17	0.017	0.5	12.63	25.4	0.075	11.81	3.32	10.5	7	0.53
5020	3.1	< .1	0.15	69	0.4	0.02	0.14	13	15.4		0.11	0.73	157	2.26	0.014	0.47	12.94	23.7	0.074	11.47	3.32	10.1	4	0.4
5021	2.53	< .1	0.14	50	0.35	< .02	0.13	12.2	14.3		0.1	0.64	255	1.07	0.019	0.58	11.33	17.3	0.078	11.44	3.06	8.9	25	1.06
5022	2.84	< .1	0.17	73	0.36	0.02	0.12	11.9	14.5		0.1	0.74	208	2.84	0.016	0.55	11.46	33	0.068	11.92	3.02	8.7	37	0.81
5023	3.43	< .1	0.24	79	0.44	0.02	0.17	15.5	18.6		0.13	0.74	152	1.58	0.016	0.41	14.6	23.6	0.071	13.77	3.92	12.9	7	0.37
5023	3.52	< .1	0.18	62	0.45	0.02	0.17	15.3	19.6		0.13	0.74	151	1.47	0.015	0.39	15.11	23.2	0.067	13.45	3.99	12.4	6	0.37
5025	2.87	0.1	0.16	46	0.35	< .02	0.13	10.8	15.8		0.12	0.65	310	3	0.017	0.62	11.06	22.8	0.063	10.43	2.77	9.3	26	2.2
5026	2.76	< .1	0.16	83	0.36	0.02	0.13	11.6	15.9		0.1	0.67	104	8.5	0.032	0.54	11.54	15.9	0.064	11.3	3.04	9.6	17	1.16
6001			0.01	75		0.01	0.14	5.7	2.4	45.4		0.12	1390	0.5	0.003	0.31		15.9	0.093	11.08		10.2	1	0.07
6002			0.01	153		0.01	0.22	12.8	2.3	57.5		0.13	959	0.8	0.002	0.24		20.7	0.22	16.21		9.6	1	0.12
6003			0.01	109		0.01	0.17	5	1.4	57.9		0.12	2772	1.29	0.003	0.24		19.4	0.11	10.39		7.4	4	0.09
6004			0.01	152		0.01	0.2	4.3	1.3	63.3		0.13	2139	1.21	0.001	0.2		15.5	0.154	13.84		8.5	3	0.1
6005			0.01	114		0.01	0.2	4.6	1.5	59.3		0.12	2435	1.51	0.002	0.2		18.1	0.14	12.34		7.5	3	0.12
6006			0.01	107		0.01	0.2	3	0.9	68.1		0.12	1783	1.11	0.001	0.22		20.5	0.14	11.23		7	2	0.13
6007			0.03	111		0.01	0.3	9.7	4.1	54.6		0.22	2113	0.6	0.002	0.33		28.6	0.235	10.35		16.4	2	0.1
6008			0.01	97		0.01	0.15	6.2	1.7	48.8		0.12	2166	1.37	0.001	0.28		20.7	0.113	15.37		6.2	2	0.07
6009			0.01	94		0.01	0.19	3.9	1.3	58.4		0.14	1423	1.08	0.002	0.18		10.9	0.115	10.95		5.1	1	0.09
6010			0.01	97		0.01	0.17	6.6	1	46.7		0.07	152	1	0.003	0.17		12.2	0.115	10.31		5.4	0.5	0.07
6011			0.01	93		0.01	0.16	4.2	1.2	52.2		0.09	2589	1.08	0.002	0.11		13.2	0.102	11.69		5.5	0.5	0.08
6013			0.02	165		0.01	0.25	1.5	0.8	89		0.1	507	1.05	0.001	0.18		12	0.211	8.09		11.5	0.5	0.21
6014			0.01	117		0.01	0.19	2.8	1.4	70.6		0.12	1747	0.75	0.001	0.16		10.6	0.157	9		7.8	2	0.15
6015			0.03	119		0.01	0.25	12.2	3.3	48.5		0.16	7053	1.69	0.002	0.4		41.2	0.329	13.12		12.8	0.5	0.11
6016			0.03	117		0.01	0.24	10.1	3.2	47.3		0.16	5774	1.36	0.002	0.47		46.4	0.251	10.91		11.7	0.5	0.07
6017			0.03	129		0.01	0.24	5.2	1.7	75.7		0.16	1474	0.94	0.001	0.17		10.8	0.175	11.85		6.7	1	0.14
6018			0.01	131		0.01	0.2	4.7	1.8	69.7		0.15	1514	0.72	0.001	0.16		15.4	0.153	11.44		8.6	2	0.14

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
6019			0.01	116		0.01	0.17	2.1	1.1	69		0.14	1264	0.82	0.001	0.15		11.2	0.128	8.53		8	2	0.13
6020			0.01	126		0.01	0.18	3.3	2.5	61.3		0.2	2128	0.68	0.001	0.17		17.9	0.119	8.44		13.5	4	0.12
6021			0.01	64		0.01	0.12	6.1	2.1	42.1		0.12	2667	1.26	0.002	0.26		29	0.117	9.93		6.8	0.5	0.07
6022			0.03	100		0.01	0.15	5.9	2.3	59.8		0.27	1436	0.82	0.002	0.81		44.5	0.179	10.41		11.6	0.5	0.1
6023			0.01	84		0.01	0.12	6.9	2.8	43.6		0.2	2303	0.93	0.002	0.26		28.5	0.121	12.04		8.7	2	0.06
6025			0.02	100		0.01	0.14	4.9	2.3	64		0.16	2315	1.52	0.001	0.2		22	0.134	7.79		7.1	0.5	0.1
6026			0.05	57		0.02	0.2	12.8	5.2	34.2		0.18	2342	1.15	0.002	0.46		42.9	0.179	10.37		22.6	0.5	0.04
6027			0.05	119		0.01	0.17	14.7	2	83.4		0.13	1007	1.27	0.001	0.21		29.5	0.218	7.82		6.8	0.5	0.17
6028			0.04	143		0.01	0.2	11.7	2	80.1		0.15	1265	1.68	0.002	0.21		26.3	0.234	10.48		6.9	2	0.16
6029			0.03	127		0.01	0.18	11.8	1.7	77.8		0.15	1675	1.02	0.002	0.21		38.3	0.197	7.81		9.3	2	0.14
6030			0.02	39		0.01	0.07	1.9	1.5	80.4		0.28	416	0.56	0.002	0.2		9.1	0.121	2.09		2.2	4	0.33
6031			0.13	44		0.02	0.17	15.1	9.7	29.9		0.36	554	0.81	0.004	0.65		23.2	0.113	10.92		14.3	0.5	0.06
6032			0.13	27		0.02	0.2	15.5	10	22.9		0.35	505	0.75	0.005	0.6		22.1	0.111	11.35		15.8	4	0.02
6033			0.03	89		0.01	0.17	2.5	1.1	76.7		0.2	716	0.66	0.001	0.17		7.1	0.144	6.49		5.1	0.5	0.15
6034			0.02	112		0.01	0.15	3.1	1.7	66.3		0.22	498	0.8	0.001	0.18		9.1	0.117	7.25		3.3	2	0.13
6035			0.03	141		0.01	0.17	1.9	1.3	77.6		0.18	564	0.85	0.001	0.32		9	0.164	8.07		4	0.5	0.2
6036			0.03	109		0.01	0.19	4.8	2.3	53.6		0.15	1392	2.55	0.003	0.3		13.8	0.165	11.08		5.9	0.5	0.13
6037			0.03	134		0.01	0.19	4.5	2.1	58.8		0.16	1375	3.22	0.002	0.3		14.8	0.176	12.01		5.2	0.5	0.13
6038			0.01	137		0.01	0.2	1	0.8	87.8		0.14	408	3.14	0.001	0.14		9.9	0.159	6.67		2.8	0.5	0.18
6039			0.04	137		0.01	0.19	7.1	2.8	64.7		0.18	1918	1.81	0.002	0.24		25.9	0.154	10.77		11.3	0.5	0.14
6040			0.05	158		0.01	0.19	7.2	2.2	71.6		0.18	1628	1.76	0.001	0.21		23.3	0.187	12.15		9.2	0.5	0.18
6041			0.07	140		0.01	0.18	7.5	1.2	85.4		0.17	1238	1.43	0.001	0.17		23.4	0.213	6.02		3.8	1	0.23
6042			0.08	136		0.01	0.14	3.2	2.8	65.8		0.15	1423	1.42	0.001	0.29		13.3	0.131	14.12		4.9	0.5	0.12
6043			0.03	135		0.01	0.14	4	1.6	69.1		0.19	1662	1.94	0.001	0.15		20.4	0.14	8.35		5.5	0.5	0.15
6044			0.02	159		0.01	0.19	2.4	1.3	79.2		0.21	1465	2.39	0.001	0.11		19.8	0.175	8.38		5.1	0.5	0.17
6045			0.07	55		0.01	0.04	2.7	4.2	68.7		0.36	4400	1.86	0.008	0.23		7.9	0.074	4.51		3.7	4	0.26
6046			0.14	67		0.01	0.07	11.7	10.2	63.6		0.34	1096	1.05	0.009	0.43		25.2	0.119	7.59		5.8	6	0.19
6047			0.07	54		0.01	0.03	2.9	3	77.8		0.29	657	0.92	0.005	0.21		16.4	0.106	4.24		1.4	8	0.38
6049			0.11	109		0.01	0.11	3.6	5.4	74.5		0.3	7784	1.41	0.009	0.24		10.2	0.228	10.46		3.9	17	0.42
6050			0.06	78		0.01	0.03	2.9	1.7	81.9		0.22	1183	2.01	0.005	0.2		13.4	0.094	4.16		1.3	12	0.64
6051			0.08	83		0.01	0.02	4.2	2.1	81.6		0.06	14	0.66	0.003	0.33		8.1	0.059	9.92		2.1	0.5	0.12
6052			0.07	70		0.01	0.03	4.1	3.9	76.4		0.05	13	0.61	0.002	0.3		6.7	0.051	10.61		3.5	2	0.12
6053			0.04	90		0.01	0.02	1.5	1.5	83.9		0.28	1596	0.71	0.007	0.13		5.4	0.109	2.19		0.8	10	0.61
6054			0.15	93		0.01	0.09	11.2	10.5	70.2		0.25	62	0.52	0.003	0.36		21.3	0.179	9.22		5	4	0.37
6055			0.02	64		0.01	0.1	5.8	2.9	29.5		0.1	4187	1.06	0.002	0.26		13.8	0.088	14.33		8.4	2	0.06
6056			0.01	166		0.01	0.14	2.4	1.5	67.7		0.18	1846	0.65	0.001	0.13		5.8	0.126	11.02		5.2	3	0.16
6057			0.02	141		0.01	0.11	3.4	1.6	59.6		0.11	4467	1.16	0.001	0.13		11.2	0.128	12.85		5.1	9	0.11

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
6058			0.02	126		0.01	0.11	4.3	3.2	50		0.11	3220	0.75	0.002	0.24		14.8	0.12	10.33		9.7	3	0.09
6059			0.04	180		0.01	0.16	4.6	2.2	72.3		0.15	447	0.82	0.002	0.28		14.3	0.176	12.95		7.3	4	0.28
6060			0.05	193		0.01	0.18	5.4	2.4	69.7		0.2	464	0.82	0.002	0.28		16.2	0.189	14.76		8.1	3	0.27
6061			0.03	146		0.01	0.14	1.9	1.6	69.2		0.13	359	0.63	0.002	0.15		4.2	0.12	12.37		3.8	1	0.13
6062			0.25	151		0.02	0.14	19.8	16.4	63.2		0.47	2650	0.87	0.005	0.55		40.9	0.297	14.62		8.9	7	0.19
6063			0.05	181		0.01	0.13	2.6	2.6	80.3		0.19	4811	0.83	0.002	0.15		10.3	0.176	11.86		5.1	0.5	0.19
6064			0.06	195		0.01	0.14	2.2	3.2	79.8		0.19	4537	1.17	0.002	0.18		8.3	0.17	11.27		5.4	3	0.18
6065			0.07	159		0.01	0.18	14	2.9	75.9		0.23	2335	0.92	0.002	0.27		23.1	0.183	10.35		5.6	3	0.2
6066			0.01	148		0.01	0.15	5	2.8	59.5		0.1	3105	0.98	0.001	0.17		17.5	0.131	13.01		6.2	1	0.06
6067			0.05	203		0.01	0.24	8.7	3.6	73.3		0.18	1907	1.39	0.001	0.22		23.1	0.169	12.92		7.9	2	0.14
6068			0.07	216		0.01	0.16	10.7	7.1	53.6		0.14	1275	2.7	0.002	0.32		23.3	0.156	16.75		8.8	3	0.11
6069			0.06	158		0.01	0.18	10	2.8	58.7		0.18	1737	1.51	0.003	0.44		27.5	0.146	15.44		12.7	1	0.11
6070			0.16	118		0.02	0.14	16.3	8.3	32.8		0.23	3172	1.5	0.004	0.84		47	0.129	15.97		24.4	0.5	0.06
6071			0.1	155		0.01	0.14	9.8	3.9	61.1		0.22	1071	1.82	0.002	0.31		31.2	0.115	12.12		11.1	2	0.13
6072			0.04	121		0.01	0.15	3.5	2.8	68.3		0.2	805	1.35	0.001	0.22		17	0.133	7.86		6.3	1	0.15
6073			0.04	132		0.01	0.13	4.8	1.6	76.3		0.22	1151	1.43	0.002	0.18		26	0.162	7.84		7	1	0.16
6074			0.04	107		0.01	0.16	3.3	4	46.3		0.17	1532	1.11	0.001	0.26		14.4	0.115	7.61		4.9	0.5	0.09
6075			0.04	118		0.01	0.11	3.1	2.4	58.5		0.12	1046	0.96	0.001	0.23		11	0.099	7.6		3.9	1	0.11
6076			0.04	125		0.01	0.14	2.9	3.1	53.1		0.16	1578	1.15	0.002	0.28		11	0.129	10.37		3.4	1	0.13
6077			0.05	146		0.01	0.18	3.4	3.8	57.1		0.15	1671	0.95	0.002	0.36		11	0.157	13.53		4.1	1	0.14
6078			0.05	82		0.02	0.13	4.5	4.6	32.1		0.15	2459	0.73	0.002	0.43		12.4	0.127	11.21		4.7	1	0.07
6079			0.06	118		0.02	0.17	5.1	3.6	42.2		0.15	3420	0.98	0.002	0.35		19.5	0.176	14.27		4.6	2	0.1
6082			0.05	109		0.01	0.22	4.4	3.7	52.6		0.92	1284	1.25	0.002	6.22		67.2	0.14	13.95		24.3	1	0.11
6083			0.05	145		0.01	0.16	3.8	2.7	73.1		1.01	733	1.95	0.001	5.12		92.2	0.149	15.14		9.3	3	0.15
6084			0.09	131		0.02	0.22	7.3	4.3	58.5		1.72	830	0.89	0.002	10.7		143.3	0.135	14.64		14.4	0.5	0.1
6085			0.06	124		0.01	0.15	2.5	1.8	80.3		0.74	451	1.73	0.001	3.64		55.6	0.129	15.68		5.4	2	0.16
6086			0.22	96		0.02	0.23	31.7	4.8	52.1		2.32	753	0.95	0.014	12.15		291.6	0.189	9.51		17.6	1	0.13
6087			0.07	129		0.01	0.12	13.3	2.1	74.7		0.67	423	0.88	0.005	2.13		100	0.122	7.13		9.4	2	0.17
6088			0.09	111		0.01	0.18	7.1	5.6	46.8		0.38	1442	0.97	0.002	1.71		37.9	0.115	13.28		15.6	1	0.12
6089			0.06	118		0.01	0.18	12.6	3.6	55.5		0.56	1335	0.97	0.002	2.78		79.6	0.141	10.5		14.4	0.5	0.14
6090			0.14	122		0.01	0.17	6.3	4.3	60.3		1.26	571	1.6	0.002	5.39		94.8	0.142	16.05		13.8	2	0.13
6091			0.7	61		0.03	0.28	61.6	21.7	34.2		5.38	1082	0.34	0.003	11.72		484.3	0.096	13.45		24.8	1	0.06
6092			0.12	151		0.01	0.18	13	3	79.8		1.18	437	1.09	0.001	4.06		96.4	0.165	11.21		14.5	0.5	0.2
6093			0.17	129		0.01	0.19	17.4	4.9	74.4		1.63	527	0.95	0.001	6.3		146.7	0.14	11.29		18	1	0.17
6096			0.07	152		0.01	0.19	8.2	2	79.7		0.85	456	1.26	0.001	2		65.3	0.149	11.77		9.4	0.5	0.19
6097			0.11	131		0.02	0.22	30.2	4	61.3		1.65	909	1.06	0.004	7.34		178.3	0.146	12.17		21.7	1	0.12
6098			0.05	141		0.01	0.15	6.6	1.9	81.2		0.69	314	1.7	0.002	1.91		54.6	0.138	8.3		7.4	2	0.21

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
6099			0.07	86		0.01	0.17	11	4.4	40.6		0.76	835	1.28	0.002	4.1		61.9	0.115	19.68		15	1	0.07
6100			0.06	133		0.01	0.19	10.6	4.1	52.5		0.51	1022	1.75	0.002	2.07		64.4	0.142	13.77		14.6	2	0.12
6101			0.1	150		0.01	0.29	16.1	3.8	65.2		0.33	1150	1.58	0.002	1.43		93.8	0.156	11.59		14.4	0.5	0.16
6102			0.05	184		0.01	0.17	10.6	2.7	74.3		0.26	1102	0.79	0.002	0.24		46.2	0.164	16.83		7.8	2	0.18
6103			0.17	141		0.02	0.31	9.8	4.3	61.7		0.51	453	2.17	0.002	1.55		63.5	0.151	15.09		20.7	2	0.15
6104			0.07	139		0.01	0.16	8.8	3.9	63.9		1.24	912	1.04	0.002	6.42		122.1	0.173	15.16		12.3	0.5	0.12
6105			0.09	138		0.01	0.14	6.8	3.6	69.9		0.4	338	1.45	0.002	1.14		38.4	0.131	10.55		5.6	3	0.14
6106			0.03	122		0.01	0.11	3.7	2.1	67.5		0.28	762	1.43	0.001	0.82		31.2	0.101	11.38		6.3	0.5	0.12
6107			0.04	133		0.01	0.12	3.3	2	72.3		0.37	731	1.27	0.002	0.69		29.9	0.118	11.27		5.8	0.5	0.13
6110			0.06	149		0.01	0.15	3.2	2.2	78.4		0.96	499	1.23	0.002	3.56		70.5	0.159	13.1		6.3	1	0.16
6111			0.11	126		0.02	0.21	13.8	5.5	58.9		1.71	957	1.22	0.002	11.39		175.3	0.174	11.98		15.2	0.5	0.11
6112			0.06	121		0.01	0.15	5	1.8	70.5		0.5	894	1.49	0.002	2.46		61.5	0.129	10.05		6.2	0.5	0.12
6113			0.11	124		0.01	0.17	5.9	2	77.5		1.33	594	0.8	0.002	6.53		138	0.129	9.02		7	0.5	0.15
6114			0.06	145		0.01	0.14	2.7	1.5	81.1		0.84	475	1.36	0.002	3.95		71.9	0.146	9.25		6.6	0.5	0.18
6115			0.05	138		0.01	0.12	2.4	1.4	84.1		0.51	530	2.75	0.002	1.81		53.8	0.139	8.32		4.9	0.5	0.18
6116			0.08	154		0.01	0.15	19	1.9	79.3		0.92	510	0.94	0.007	3.25		125.6	0.154	9.3		5.9	0.5	0.19
6117			0.05	143		0.01	0.18	3.6	2.8	57.4		0.14	1375	1.1	0.002	0.26		15.9	0.144	9.42		4.1	3	0.09
6118			0.05	114		0.01	0.14	6.2	7	29.6		0.16	1433	0.74	0.002	0.37		17.3	0.133	13.6		13.6	0.5	0.07
6119			0.04	118		0.01	0.16	4.1	4.5	45.9		0.16	3828	0.72	0.002	0.3		16.7	0.133	14.74		14.6	0.5	0.08
6120			0.05	148		0.01	0.13	4.1	5.1	51		0.15	2693	1.14	0.002	0.27		15.9	0.139	17.18		10.1	0.5	0.08
6121			0.03	171		0.01	0.13	3.1	3.3	65.5		0.14	2380	1.01	0.002	0.19		15.2	0.15	16.73		8.4	0.5	0.14
6124			0.03	137		0.01	0.14	2.4	3	66		0.11	623	0.86	0.001	0.2		7.8	0.122	9.41		6	0.5	0.14
6125			0.11	191		0.02	0.21	17.1	4.4	70.9		0.2	1726	0.83	0.006	0.23		23.2	0.2	13.44		9.3	0.5	0.16
6126			0.12	160		0.01	0.12	18.5	10.4	50.6		0.24	2938	0.78	0.003	0.32		38.4	0.171	11.18		5.7	0.5	0.13
6127			0.06	147		0.01	0.14	8.5	3.6	74.9		0.21	956	0.71	0.002	0.18		30.5	0.155	8.38		6.5	1	0.16
6128			0.05	129		0.01	0.13	3.4	1.8	69.3		0.19	876	1.14	0.002	0.2		20.3	0.132	7.51		4.5	0.5	0.14
6129			0.07	163		0.01	0.16	19	2.5	71.2		0.21	591	0.94	0.003	0.19		62.8	0.197	9.63		6.6	0.5	0.2
6130			0.31	75		0.04	0.23	70.7	18.6	38.1		0.39	734	0.51	0.012	0.49		155	0.342	8.75		20.7	0.5	0.08
6131			0.07	91		0.01	0.04	3.3	1.4	85.7		0.4	190	0.58	0.013	0.1		35.7	0.168	1.16		1.5	0.5	0.25
6132			0.05	96		0.01	0.06	4.4	3.2	71		0.31	496	0.65	0.007	0.23		25.7	0.156	3.47		2.3	0.5	0.21
6133			0.12	104		0.02	0.07	6.7	7.6	51.3		0.31	2246	1.09	0.019	0.32		32	0.145	5.68		3.9	3	0.24
6134			0.02	108		0.01	0.09	0.9	1	86.9		0.23	66	1.18	0.003	0.08		7.6	0.139	4.06		1.1	7	0.55
6135			0.02	116		0.01	0.08	0.9	1	86.8		0.23	45	1.38	0.004	0.08		8.2	0.131	3.6		1.2	10	0.57
6138			0.01	124		0.01	0.04	0.8	1	83.4		0.21	256	0.44	0.031	0.1		5.1	0.123	1.63		0.6	2	0.24
6139			0.13	78		0.01	0.04	6.3	7.2	48.4		0.29	2203	0.5	0.032	0.26		18.3	0.106	4.63		2.3	4	0.2
6140			0.09	82		0.01	0.16	5.5	4	56.6		0.24	419	0.51	0.002	0.22		16.4	0.137	6.57		5.6	0.5	0.17
6141			0.17	83		0.02	0.23	10.8	4.8	44.7		0.25	739	0.49	0.004	0.34		45.9	0.229	10.01		9.2	0.5	0.11

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
6142			0.05	144		0.01	0.14	10	2.9	59.3		0.15	2313	1.4	0.003	0.31		25.1	0.163	10.49		7.1	0.5	0.14
6143			0.03	165		0.01	0.21	3.4	1.6	66.3		0.14	1829	1.05	0.002	0.21		10.5	0.194	12.05		6.7	1	0.12
6144			0.03	86		0.01	0.04	1.3	1.6	78.5		0.42	1132	1.84	0.011	0.15		5.2	0.229	4.06		1	2	0.23
6145			0.03	77		0.01	0.13	2.4	1.4	81.7		0.31	721	0.82	0.001	0.22		10.6	0.127	4.09		1.5	2	0.15
6146			0.01	114		0.01	0.14	7.5	2.8	51.1		0.14	3881	0.85	0.002	0.32		25.3	0.162	16.55		7.3	2	0.08
6147			0.01	105		0.01	0.14	8.4	1.7	45.6		0.15	6281	0.78	0.001	0.27		47.7	0.145	10.73		7.3	2	0.09
6148			0.02	124		0.01	0.12	6.9	2	52.3		0.16	5506	1.16	0.002	0.29		35	0.155	12.25		7	0.5	0.11
6149			0.02	179		0.01	0.18	3.8	1	77.5		0.23	3632	1.18	0.002	0.16		25.1	0.223	13.24		6.3	0.5	0.2
6150			0.01	121		0.01	0.12	6.7	2.3	49.9		0.16	5689	1.12	0.002	0.28		35	0.144	12.03		6.9	0.5	0.08
6152			0.02	125		0.01	0.19	3.1	1.6	73.1		0.16	1259	0.66	0.001	0.17		10.5	0.167	11.52		6.1	1	0.14
6153			0.01	125		0.01	0.09	6.2	1.6	52.1		0.06	160	1.33	0.002	0.26		7.8	0.115	13.2		3.8	0.5	0.06
6154			0.01	114		0.01	0.06	8.7	1.4	52.4		0.05	86	0.81	0.003	0.28		8.7	0.119	13.19		2.1	0.5	0.03
6155			0.18	132		0.01	0.01	24.4	0.8	85.8		0.24	296	2.11	0.008	0.25		70.5	0.243	2.38		0.8	6	0.44
6156			0.07	178		0.03	0.14	33	2.9	56.4		0.13	3307	2.49	0.003	0.39		68.6	0.182	18.55		9.1	2	0.08
6157			0.02	124		0.01	0.11	21.2	1.4	62.8		0.08	405	1.05	0.002	0.21		35	0.152	10.07		4.4	0.5	0.06
6158			0.04	184		0.03	0.14	23.7	1.7	80.5		0.1	6347	2.68	0.003	0.23		48.1	0.298	15		4.9	2	0.13
6159			0.03	209		0.01	0.11	15.3	1.9	70.2		0.08	678	1.2	0.002	0.28		25.3	0.161	14.48		6.2	0.5	0.09
6160			0.02	260		0.01	0.12	10.9	1.6	83.4		0.08	621	1.66	0.002	0.21		27	0.207	8.47		4.9	0.5	0.09
6161			0.02	211		0.01	0.13	4.1	0.9	75.6		0.06	1487	1.31	0.002	0.19		12.6	0.14	12.64		6	0.5	0.09
6162			0.03	254		0.01	0.15	2.9	1.2	83.6		0.05	1053	1.02	0.002	0.17		13.1	0.148	12.97		6.1	0.5	0.11
6163			0.01	206		0.01	0.09	4.6	1.1	78.6		0.06	1220	0.88	0.002	0.2		21.3	0.135	10.4		4.5	1	0.09
6166			0.01	135		0.01	0.08	10.9	3.6	35.6		0.09	2027	0.97	0.002	0.37		33.2	0.15	11.78		8.5	0.5	0.05
6167			0.02	181		0.01	0.18	4.3	3.9	66.8		0.15	1686	1.11	0.002	0.26		19.3	0.176	14.6		9.7	0.5	0.13
6168			0.04	180		0.02	0.25	26.1	3.3	67.7		0.23	10558	2.75	0.003	0.38		78.3	0.335	15.47		15.3	0.5	0.19
6169			0.03	153		0.01	0.12	15.5	3.3	69.7		0.14	639	1.37	0.002	0.36		28.9	0.15	7.35		9.5	0.5	0.1
6170			0.03	165		0.01	0.16	10.2	2.3	69.8		0.21	5874	1.18	0.001	0.23		61.7	0.208	14.88		9.8	0.5	0.16
6171			0.01	156		0.01	0.16	5.1	1.6	61.3		0.1	6268	0.74	0.002	0.14		50	0.153	14.72		7	0.5	0.11
6172			0.02	160		0.01	0.12	11.1	3.7	55.8		0.12	5322	1.05	0.002	0.34		49.8	0.15	11.67		9.7	1	0.11
6173			0.04	158		0.02	0.2	20.8	3.1	68.4		0.18	6883	1.22	0.003	0.36		89.7	0.254	15.65		15.8	0.5	0.16
6174			0.02	162		0.02	0.15	14.1	2.6	64.6		0.18	5526	1.13	0.002	0.29		57.6	0.226	13.58		10.7	0.5	0.15
6175			0.06	161		0.01	0.16	15.7	5.8	63.5		0.14	545	0.79	0.004	0.4		25.1	0.245	7.31		9.8	0.5	0.15
6176			0.06	166		0.01	0.16	20.4	1.8	80.5		0.18	3829	1.34	0.002	0.24		57	0.236	9.66		9.6	0.5	0.19
6177			0.05	160		0.01	0.17	15.8	1.9	79.6		0.19	5034	0.99	0.002	0.2		58.3	0.238	10.6		8.8	1	0.18
6178			0.01	40		0.01	0.09	0.8	0.3	96.1		0.11	49	0.24	0.006	0.06		3.4	0.046	19.04		0.8	0.5	0.05
6180			0.01	109		0.01	0.14	5.9	2	50.5		0.12	8396	1.12	0.001	0.23		38	0.131	9.37		13.4	1	0.11
6181			0.03	121		0.01	0.14	10.4	6.3	64.2		0.2	1800	0.89	0.002	0.28		27.9	0.158	9.52		9.7	5	0.15
6182			0.01	89		0.01	0.16	6.1	2.4	57.8		0.16	1454	0.74	0.001	0.21		13.5	0.104	11.3		5.7	2	0.1

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
6183			0.18	38		0.01	0.09	14	20.5	47.1		0.26	109	0.75	0.007	0.49		31.4	0.099	8.66		12.6	19	0.36
6184			0.14	46		0.01	0.07	10.4	12.7	63.2		0.25	100	0.62	0.008	0.41		22.5	0.103	5.8		9.4	23	0.57
6185			0.08	22		0.02	0.08	11.4	16.6	26.6		0.26	483	0.63	0.005	0.58		18.4	0.054	9.05		11.9	3	0.09
6186			0.02	72		0.01	0.17	8.1	4.2	30.4		0.15	2428	0.81	0.001	0.28		18	0.106	11.45		14.8	1	0.04
6187			0.02	144		0.01	0.18	4.1	1.9	80.2		0.24	2084	1.19	0.001	0.15		14.1	0.191	10.96		7.3	2	0.2
6188			0.01	46		0.01	0.08	3.1	0.6	25.2		0.05	1559	0.89	0.001	0.1		8.6	0.039	4.63		4.2	1	0.03
6189			0.01	99		0.01	0.11	2.2	0.6	62.8		0.08	1610	1.12	0.001	0.09		7.8	0.103	5.98		2.9	2	0.09
6194			0.01	62		0.01	0.05	7.2	1.8	51.2		0.04	26	0.62	0.004	0.17		16.5	0.157	11.21		5.8	2	0.07
6195			0.01	164		0.01	0.19	6.7	1.8	52.6		0.11	4117	1.15	0.001	0.22		58.3	0.134	13.43		16.1	2	0.08
6196			0.01	136		0.01	0.09	13.2	3	80.5		0.26	2303	1.49	0.01	0.27		21.5	0.166	7.08		5.1	1	0.11
6197			0.03	39		0.02	0.09	13.2	13.1	28.7		0.22	253	0.85	0.018	0.7		22.3	0.09	17.71		15.7	2	0.04
6198			0.02	105		0.01	0.09	7.3	2.6	50.4		0.06	265	0.53	0.006	0.33		7.6	0.099	11.51		7.3	1	0.04
6199			0.02	123		0.01	0.09	4.6	1.8	62.3		0.09	274	0.89	0.003	0.25		8.8	0.079	6.94		3.9	2	0.1
6200			0.04	147		0.01	0.16	2.3	0.9	74		0.13	936	0.99	0.001	0.17		5.2	0.086	3.79		2.7	1	0.16
6201			0.02	225		0.01	0.16	4.9	2.1	74		0.15	1180	1.24	0.002	0.22		11.8	0.132	11.41		7.1	0.5	0.13
6202			0.02	184		0.01	0.1	2.9	1.2	87.2		0.09	106	1.6	0.002	0.17		7.2	0.11	8.78		6.2	2	0.14
6203			0.03	147		0.02	0.1	12.6	3.4	77.7		0.17	4323	1.86	0.004	0.26		23.4	0.162	19.88		10	1	0.12
6204			0.03	142		0.02	0.1	13.2	3.8	75.4		0.17	7371	2.4	0.004	0.26		25.6	0.152	19.23		9.8	2	0.1
6207			0.02	194		0.01	0.15	3.5	1.1	76.2		0.07	1123	0.95	0.002	0.14		9	0.127	9.69		6.3	0.5	0.1
6208			0.01	188		0.02	0.14	28.9	1.1	83.9		0.1	660	1.1	0.004	0.16		54.1	0.246	14.96		13.5	4	0.12
6209			0.02	163		0.01	0.16	15.7	0.9	89.1		0.1	638	1.02	0.005	0.12		25.6	0.175	7.83		7.5	0.5	0.09
6210			0.02	276		0.01	0.21	9.4	0.9	83.3		0.11	7297	0.71	0.002	0.11		46.6	0.214	10.28		12.3	0.5	0.16
6211			0.02	162		0.01	0.11	11.1	2.5	45.9		0.09	3416	0.86	0.002	0.26		38.8	0.144	12.45		9.4	1	0.07
6212			0.03	160		0.01	0.25	3.4	0.8	85.9		0.14	1411	0.89	0.001	0.1		21.1	0.185	9.76		13.9	1	0.14
6213			0.01	190		0.01	0.09	4	0.7	84.9		0.05	1589	1.15	0.001	0.14		26.2	0.108	14.98		6.9	0.5	0.07
6214			0.01	173		0.01	0.1	3.1	0.7	82.8		0.04	277	1.13	0.006	0.15		11.4	0.112	12.73		6.2	2	0.04
6215			0.01	151		0.01	0.19	10.1	0.9	84.3		0.08	1688	1.74	0.002	0.22		26.7	0.244	12.71		5.8	0.5	0.1
6216			0.09	90		0.01	0.11	9.9	5.9	58.3		0.44	626	0.61	0.003	1.14		58.9	0.154	6.47		4.9	2	0.19
6217			0.13	72		0.01	0.1	12.1	9	40.9		0.52	730	0.42	0.007	1.3		62.8	0.167	7.22		6.5	2	0.14
6218			0.14	71		0.02	0.12	14.5	11.9	37.1		0.54	744	0.37	0.006	1.67		68	0.157	7.83		7.9	2	0.15
6221			0.07	114		0.01	0.11	4.3	3.7	62.6		0.2	260	1.14	0.002	0.47		14.5	0.113	8.05		5.7	0.5	0.15
6222			0.06	135		0.01	0.1	11.4	2.8	84.7		0.17	211	0.71	0.002	0.19		19	0.137	7.31		3.9	0.5	0.18
6223			0.06	133		0.01	0.12	5.5	5.4	68.6		0.25	481	0.96	0.002	0.3		18.2	0.114	11.82		7.4	0.5	0.14
6224			0.05	99		0.01	0.13	11.1	6.3	49.7		0.2	526	1.12	0.002	0.37		25.3	0.104	10.62		11.8	0.5	0.12
6225			0.08	74		0.01	0.12	4.5	6.6	52.6		0.2	740	1.06	0.001	0.29		14.5	0.1	15.5		7.5	0.5	0.11
6226			0.06	59		0.01	0.11	5	6.3	36.6		0.17	271	0.59	0.002	0.26		6.6	0.064	6.93		7.8	0.5	0.1
6227			0.07	147		0.01	0.16	10.9	7.1	62.7		0.25	359	0.87	0.004	0.3		12.8	0.163	8.61		7.8	0.5	0.14

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
6228			0.02	120		0.01	0.09	3.5	3.1	52.5		0.13	1095	1.11	0.001	0.21		8.5	0.104	12.81		4.2	0.5	0.09
6229			0.02	70		0.01	0.11	5.4	4.5	27.4		0.13	707	0.61	0.002	0.29		9.8	0.083	7.19		5	0.5	0.07
6230			0.03	137		0.01	0.13	2.8	3.4	66.4		0.19	1041	0.92	0.002	0.22		8.9	0.121	12.92		4.3	0.5	0.16
6231			0.03	118		0.01	0.15	3	3.3	63.1		0.2	1131	0.84	0.002	0.26		9.6	0.118	11.76		5.2	0.5	0.15
6232			0.03	114		0.01	0.14	2.5	2.5	68.5		0.19	903	0.83	0.001	0.2		9	0.123	10.06		4.4	0.5	0.16
7001	1.21	< .1	< .02	27	0.09	< .02	0.07	10.2	13.4		0.03	0.21	146	1.11	0.003	0.3	8.12	11.8	0.016	7.55	2.24	14.2	< 1	0.02
7002	1.42	< .1	< .02	28	0.11	< .02	0.1	11.6	13.5		0.03	0.27	162	1.48	0.003	0.24	9.08	18.2	0.029	8.84	2.45	15.6	< 1	0.01
7003	1.13	0.1	0.04	34	0.1	0.02	0.16	10.1	15.5		0.03	0.33	195	1.41	0.003	0.25	7.62	18.5	0.027	10.6	2.14	23.3	< 1	< .01
7004	1.38	< .1	0.05	42	0.13	0.03	0.16	11	16.3		0.04	0.33	142	1.42	0.003	0.22	8.03	19.9	0.029	11.24	2.31	19.9	< 1	< .01
7004	1.45	< .1	0.04	46	0.13	0.03	0.16	11.4	16.5		0.04	0.34	151	1.47	0.003	0.23	8.57	21.8	0.031	11.77	2.4	20.6	< 1	0.02
7005	1.53	< .1	< .02	25	0.11	0.02	0.08	12.9	15.4		0.02	0.23	226	1.06	0.003	0.28	9.93	12.4	0.041	7.69	2.94	17.6	< 1	< .01
7006	1.61	0.1	0.03	39	0.13	0.04	0.15	11.4	15.1		0.04	0.31	184	1.08	0.003	0.25	9.8	17.5	0.036	9.35	2.56	21.4	< 1	< .01
7007	1.69	0.1	0.03	45	0.17	0.04	0.19	12.1	17.4		0.04	0.33	176	0.89	0.003	0.24	9.89	17.3	0.049	9.76	2.85	22	< 1	< .01
7008	1.33	< .1	< .02	36	0.13	0.05	0.12	11.2	14		0.04	0.29	162	1.16	0.003	0.21	8.57	18.4	0.025	10.17	2.49	16.9	< 1	< .01
7009	1.61	0.1	0.06	49	0.16	0.06	0.14	13	15.6		0.04	0.34	146	1.51	0.003	0.2	8.59	21.4	0.022	12.42	2.55	17.5	< 1	0.02
7010	2.5	0.1	0.11	52	0.25	0.07	0.2	16.2	16.5		0.06	0.35	228	1.91	0.004	0.21	13.28	24.2	0.062	11.94	3.57	23.3	< 1	< .01
7011	1.28	< .1	< .02	32	0.1	0.05	0.09	10.3	19.3		0.03	0.28	113	1.47	0.003	0.22	7.53	16.4	0.021	10.84	2.25	15.3	< 1	0.01
7013	2.37	0.1	0.08	60	0.25	0.07	0.2	13.9	18.3		0.06	0.36	199	1.64	0.004	0.22	12.4	19.3	0.04	11.23	3.32	23.8	< 1	< .01
7014	2	0.1	0.04	57	0.21	0.07	0.12	14.2	17.2		0.05	0.33	131	1.39	0.003	0.19	10.91	20.1	0.026	11.73	2.99	16.4	< 1	0.01
7015	2.46	0.1	0.03	15	0.21	0.05	0.13	14.9	12.9		0.06	0.23	282	2.05	0.004	0.3	12.71	17.1	0.102	8.17	3.48	13.7	< 1	0.02
7016	2.29	0.1	0.02	23	0.22	0.08	0.13	14.9	13.1		0.06	0.23	266	1.93	0.003	0.26	12.92	15	0.104	8.59	3.53	13.5	< 1	0.02
7016	2.46	0.1	< .02	21	0.21	0.06	0.13	14.4	13.1		0.05	0.23	267	1.97	0.003	0.28	12.25	15.2	0.103	8.68	3.46	13.1	< 1	0.01
7017	1.68	< .1	0.04	34	0.16	0.06	0.15	11.5	14.6		0.05	0.28	170	1.26	0.003	0.23	9.6	16.5	0.027	10.16	2.67	18.3	< 1	0.01
7018	1.53	0.1	0.05	34	0.17	0.07	0.12	12.5	18.4		0.05	0.32	144	1.4	0.003	0.2	9.69	19.2	0.024	11.19	2.63	17.7	< 1	0.01
7019	2.08	0.1	0.1	44	0.27	0.07	0.17	14.2	16.7		0.07	0.32	160	1.48	0.003	0.24	12.02	21.5	0.033	11.03	3.3	23.1	< 1	0.02
7020	1.45	< .1	0.02	27	0.12	0.06	0.14	11.7	16.8		0.03	0.28	198	0.9	0.003	0.28	8.88	16.7	0.021	8.91	2.48	21.5	< 1	0.02
7021	1.39	0.1	0.03	14	0.12	0.02	0.11	10.9	12.2		0.03	0.28	160	0.8	0.003	0.23	8.38	17.9	0.026	9.93	2.36	15.4	< 1	< .01
7022	2.15	0.1	0.14	32	0.23	0.03	0.14	16.5	15.5		0.07	0.48	253	1.01	0.004	0.35	11.89	58.2	0.031	11.92	3.41	18.3	< 1	< .01
7023	1.74	0.1	0.05	39	0.18	0.03	0.11	13.3	14.2		0.04	0.36	157	1.03	0.003	0.2	8.47	22.1	0.034	11.36	2.51	13.9	1	0.01
7025	2.04	0.1	0.09	36	0.2	0.03	0.16	13.2	15.4		0.05	0.35	177	1.08	0.004	0.22	10.12	21.7	0.036	12.25	2.91	19.8	1	0.02
7026	1.62	0.1	0.03	24	0.16	0.02	0.14	11.8	13.8		0.04	0.28	181	1.05	0.004	0.25	9.19	18.2	0.052	10.43	2.66	20.6	1	< .01
7027	1.91	0.1	0.03	18	0.18	0.03	0.13	12.7	13.8		0.03	0.26	280	0.7	0.003	0.23	10.6	15	0.046	11.26	2.95	20.4	< 1	0.01
7028	2.48	0.1	0.09	23	0.27	0.05	0.18	15.3	17		0.07	0.35	221	0.96	0.004	0.17	12.42	20.6	0.045	12.44	3.47	22.1	2	< .01
7028	2.31	0.1	0.11	32	0.27	0.05	0.16	14.7	16.2		0.07	0.33	221	0.99	0.004	0.17	12.29	21.7	0.045	12.05	3.49	21	3	< .01
7029	2.02	0.1	0.07	27	0.17	0.06	0.16	12.8	14.8		0.05	0.34	184	0.98	0.003	0.2	9.88	20.5	0.034	10.97	2.83	20.5	< 1	< .01
7030	3.71	0.1	0.05	48	0.46	0.07	0.12	17	16.4		0.12	0.33	190	0.99	0.005	0.19	16.97	21.7	0.061	12.09	4.35	13	2	< .01
7031	2.52	0.1	0.02	18	0.24	0.08	0.11	14.3	11.2		0.07	0.24	168	0.58	0.004	0.25	12.54	12.4	0.062	8.76	3.55	10.9	1	< .01

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
7032	3.15	0.1	0.06	30	0.36	0.07	0.14	15.2	14.8		0.09	0.33	180	0.63	0.004	0.24	14.23	18.1	0.044	9.53	3.86	16.5	< 1	< .01
7033	3.02	0.1	0.03	34	0.31	0.06	0.11	16.6	11.8		0.07	0.24	254	0.58	0.003	0.2	14.99	14.3	0.053	9.05	4.13	11.5	2	0.01
7034	3.7	0.1	0.03	51	0.42	0.06	0.17	17.6	9.7		0.12	0.35	491	0.76	0.004	0.32	16.57	30.4	0.083	11.6	4.62	14.2	1	0.02
7035	2.94	0.1	0.13	68	0.37	0.07	0.19	17.8	16.4		0.1	0.42	255	1.31	0.008	0.27	13.56	44.3	0.034	14.28	3.99	17	< 1	0.03
7037	2.29	0.1	0.03	19	0.18	0.04	0.12	15.5	14.7		0.05	0.26	212	0.83	0.004	0.29	12.57	17	0.091	10.2	3.49	13.2	2	< .01
7038	2.22	0.1	0.06	34	0.23	0.06	0.21	13.4	14.6		0.07	0.33	193	1.01	0.004	0.24	10.84	22.2	0.043	11.71	3.06	20.3	< 1	< .01
7039	2.31	0.1	0.08	38	0.22	0.06	0.2	13.5	16.4		0.06	0.35	213	1.24	0.004	0.26	11.13	23	0.039	12.1	3.08	23.9	< 1	< .01
7040	2.21	0.1	0.09	37	0.25	0.05	0.19	14.1	16.2		0.07	0.35	223	1.22	0.004	0.24	11.38	23	0.038	12.27	3.26	22.5	4	< .01
7040	2.29	0.1	0.09	45	0.24	0.05	0.21	14.7	17.3		0.08	0.36	226	1.22	0.004	0.24	11.94	24.2	0.039	12.8	3.37	23.9	< 1	0.01
7041	4.2	0.1	0.07	40	0.45	0.04	0.15	20.9	14		0.13	0.28	171	0.91	0.004	0.31	19.33	15.3	0.074	9.84	5.08	16.2	3	< .01
7042	3.27	0.1	0.08	69	0.37	0.03	0.1	14.7	11.1		0.13	0.71	268	0.71	0.006	0.26	14.06	15.6	0.075	8.4	3.66	9.3	1	0.02
7043	1.71	< .1	0.03	31	0.15	0.03	0.17	12.2	13.7		0.04	0.29	144	0.58	0.004	0.24	9.73	16.5	0.044	8.49	2.74	18.1	1	< .01
7044	2.49	< .1	0.05	47	0.24	0.03	0.21	15.3	13.9		0.05	0.3	259	0.68	0.004	0.27	11.78	20.4	0.057	10.02	3.43	20.4	2	< .01
7045	5.07	0.1	0.18	61	0.62	0.03	0.19	21.7	21.9		0.19	0.45	315	0.96	0.007	0.17	21.41	25.7	0.041	14.3	5.67	19	2	< .01
7046	3.06	0.1	0.17	34	0.35	0.03	0.14	15.9	24.2		0.1	0.33	230	0.73	0.006	0.24	15.05	17	0.032	10.79	4.1	16.5	4	< .01
7047	3.21	0.1	0.15	31	0.39	0.03	0.15	17.2	26.6		0.11	0.39	189	0.98	0.006	0.16	15.35	21	0.028	12.79	4.28	16.2	5	< .01
7049	2.35	0.1	0.13	39	0.28	0.02	0.17	13.9	22.3		0.05	0.36	287	0.95	0.005	0.33	11.61	15.5	0.041	10.75	3.32	19.1	2	0.01
7050	4.35	0.1	0.16	64	0.51	0.03	0.15	20.3	19.1		0.14	0.34	302	0.88	0.006	0.25	18.93	23.3	0.063	12.59	5.19	13.5	< 1	0.01
7051	1.48	< .1	0.09	46	0.16	0.03	0.11	10.5	23.2		0.04	0.29	92	1.45	0.004	0.24	8.62	15.2	0.023	12.06	2.37	11.3	2	< .01
7052	1.44	< .1	0.08	61	0.16	0.02	0.11	10.2	21.3		0.05	0.29	100	1.65	0.004	0.18	8.69	15.3	0.023	12.97	2.37	10.3	< 1	0.01
7052	1.42	< .1	0.09	38	0.15	0.03	0.1	9.9	20.6		0.05	0.28	98	1.66	0.004	0.17	8.1	15.2	0.022	12.65	2.35	9.9	< 1	0.01
7053	2.41	0.1	0.12	28	0.23	0.02	0.14	15	21.4		0.08	0.29	151	1.08	0.006	0.17	12.48	14.5	0.05	12.33	3.43	16.1	2	0.02
7054	3.64	0.1	0.2	51	0.44	0.04	0.17	15.9	26.4		0.13	0.44	221	1.06	0.007	0.12	16.29	20	0.025	14.26	4.32	16.8	< 1	< .01
7055	1.41	< .1	0.06	21	0.11	< .02	0.09	11.2	21.2		0.03	0.32	168	0.96	0.005	0.19	9.19	15.1	0.024	9.72	2.51	12.4	< 1	< .01
7056	1.17	< .1	0.06	35	0.13	0.02	0.07	9.6	16.2		0.02	0.29	113	1.23	0.005	0.15	7.7	16.3	0.022	10.63	2.13	8.8	1	0.01
7057	1.68	0.1	0.07	57	0.15	0.02	0.1	12.2	19.9		0.05	0.32	165	1.63	0.006	0.17	9.19	18.7	0.028	11.71	2.68	11.2	< 1	0.01
7058	1.45	< .1	0.03	37	0.14	0.03	0.1	11.2	16.3		0.04	0.3	142	1.33	0.004	0.16	8.96	17.5	0.028	10	2.47	13.1	< 1	< .01
7059	1.5	< .1	0.12	39	0.11	0.04	0.14	11.9	25.7		0.03	0.38	88	0.75	0.005	0.2	8.92	11.9	0.019	10.96	2.45	15.9	< 1	< .01
7061	1.6	0.1	0.07	42	0.14	0.05	0.13	11.1	17.1		0.04	0.39	107	0.94	0.007	0.19	8.69	15.1	0.019	12.9	2.45	14.6	< 1	< .01
7062	2.54	0.1	0.12	33	0.27	0.04	0.13	14.9	28.7		0.08	0.37	145	0.65	0.008	0.17	13.29	17.8	0.031	9.87	3.68	15.9	< 1	< .01
7063	2.88	0.1	0.15	41	0.32	0.04	0.13	14.5	20.3		0.08	0.32	111	0.47	0.007	0.14	13.37	13	0.029	7.4	3.74	13.2	< 1	< .01
7064	2.54	0.1	0.11	23	0.25	0.06	0.11	13.8	17.9		0.08	0.26	78	0.42	0.005	0.12	12.58	11	0.031	6.52	3.47	11.2	1	< .01
7064	2.43	0.1	0.12	42	0.29	0.04	0.11	14.7	18.2		0.08	0.27	78	0.42	0.006	0.15	13.71	10.7	0.031	6.67	3.76	11.3	1	< .01
7065	1.93	0.1	0.08	22	0.16	0.05	0.08	13.8	16.5		0.05	0.25	106	0.46	0.004	0.17	12.69	11.5	0.029	5.73	3.34	14	1	< .01
7066	1.99	0.1	0.16	42	0.18	0.08	0.16	13.3	21.5		0.06	0.4	119	0.87	0.007	0.2	11.14	16.5	0.023	11.88	3.19	18.4	< 1	< .01
7067	2.01	0.1	0.08	37	0.21	0.08	0.13	14.4	18.5		0.05	0.35	91	0.62	0.007	0.19	11.74	14.2	0.032	9.61	3.31	17.3	2	< .01
7068	2.3	0.1	0.12	36	0.23	0.09	0.17	16.4	22.7		0.07	0.41	117	0.89	0.007	0.2	12.7	18.5	0.032	10.66	3.7	21.4	< 1	< .01

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
7069	1.66	0.1	0.1	30	0.21	0.03	0.14	14.7	15.2		0.05	0.38	102	0.83	0.005	0.11	8.74	33.8	0.017	11.5	2.49	20.7	< 1	0.01
7070	2.02	< .1	0.1	95	0.34	0.03	0.09	12.9	4.9		0.1	0.3	48	0.27	0.008	0.04	9.54	14.9	0.008	10.87	2.61	10.6	< 1	0.01
7071	1.42	< .1	0.07	44	0.2	0.03	0.11	12.1	11.1		0.05	0.4	175	0.69	0.006	0.1	7.89	21.2	0.016	13.48	2.21	18.9	< 1	0.01
7072	0.75	< .1	0.06	44	0.07	0.02	0.1	8.5	5		< .02	0.32	53	0.27	0.004	0.06	4.46	13.6	0.011	9.59	1.3	12.7	< 1	0.01
7073	1.36	< .1	0.09	61	0.18	0.03	0.11	11.5	12.5		0.05	0.38	66	0.34	0.006	0.03	6.98	25.6	0.008	10.87	2.05	15.1	< 1	0.01
7074	2.51	0.1	0.12	51	0.32	0.04	0.17	17.7	16.1		0.07	0.41	327	0.98	0.005	0.15	12.38	37.9	0.031	13.97	3.5	16.4	< 1	< .01
7075	1.99	< .1	0.12	27	0.23	0.03	0.2	13.8	15.4		0.07	0.45	271	0.86	0.005	0.09	11.12	33.8	0.066	13.18	2.99	14.9	< 1	0.01
7076	1.5	0.1	0.08	25	0.14	0.02	0.14	11.3	13.9		0.04	0.34	219	0.74	0.004	0.18	8.88	25.5	0.054	10.08	2.43	13	< 1	0.01
7077	1.75	0.1	0.11	42	0.19	0.04	0.18	11.3	14.7		0.06	0.38	225	0.95	0.005	0.16	9.58	25.1	0.053	12.2	2.56	15.2	< 1	0.02
7078	2.06	< .1	0.11	24	0.23	0.03	0.14	13.7	13.1		0.06	0.31	259	0.76	0.006	0.1	10.38	26.1	0.054	10.69	2.88	11.2	< 1	0.02
7079	2.08	0.1	0.11	24	0.26	0.03	0.15	14.8	13.7		0.06	0.34	265	0.79	0.006	0.12	11	27.4	0.055	11.6	3.06	12.5	< 1	0.02
7080	2.19	0.1	0.11	27	0.26	0.03	0.15	14.8	14.7		0.07	0.33	266	0.8	0.006	0.11	11.29	27.8	0.059	11.73	3.13	12	< 1	0.02
7082	0.98	0.1	0.33	8	0.1	0.04	0.18	11.1	17.8		0.03	4.2	501	0.79	0.007	1.79	5.66	240.2	0.037	11.81	1.7	18.9	< 1	0.02
7083	1.57	0.1	0.38	9	0.15	0.03	0.09	18.1	18.1		0.04	7.83	791	2.11	0.009	2.79	9.13	653	0.045	8.24	2.83	9	< 1	0.03
7084	1.97	0.2	0.35	17	0.19	0.03	0.2	19.1	18.4		0.05	6.36	1050	0.18	0.007	2.6	12.28	482.9	0.053	11.09	3.67	19.9	< 1	0.01
7085	1.69	0.1	0.25	15	0.15	0.03	0.12	15.9	20.7		0.04	4.56	564	0.69	0.006	2.3	10.5	318.1	0.065	10.2	2.98	12.8	< 1	0.02
7086	2.76	0.1	0.37	32	0.29	0.03	0.16	21	21.7		0.08	6.26	635	0.44	0.049	2.34	15.27	446.7	0.039	8.7	4.16	16.5	< 1	0.02
7087	4.38	0.1	0.16	91	0.56	0.03	0.17	19.7	14.2		0.17	0.61	271	2.34	0.016	0.26	19.45	63.3	0.05	10.25	4.87	17.8	2	0.01
7088	1.27	< .1	0.09	30	0.16	0.03	0.15	12.6	16		0.04	0.5	110	1.34	0.007	0.29	7.9	36.6	0.019	12.86	2.2	18.4	< 1	< .01
7089	1.45	0.1	0.05	22	0.13	0.02	0.11	12.7	13.9		0.04	1.03	175	0.99	0.006	1.05	9.36	65.9	0.04	8.51	2.5	15.6	< 1	0.02
7090	1.96	0.1	0.33	34	0.21	0.03	0.13	17.1	21.3		0.05	2.94	488	0.83	0.007	1.29	11.4	249.8	0.029	11.7	3.19	16.1	< 1	< .01
7091	5.01	0.2	0.4	37	0.42	0.02	0.13	68.4	27.3		0.13	7.04	1541	0.09	0.005	0.94	37.5	745.8	0.049	10.85	10.43	11.4	< 1	0.01
7092	3.63	0.1	0.5	33	0.31	0.03	0.12	44.1	27.3		0.1	6.65	746	0.19	0.005	1.15	24.69	532.7	0.021	9.94	6.98	12.9	< 1	0.01
7093	3.68	0.1	0.54	25	0.32	0.03	0.11	43.9	27.1		0.09	6.68	721	0.16	0.005	0.97	24.52	521.2	0.02	9.81	6.9	13	< 1	0.01
7094	3.66	0.2	0.55	23	0.34	0.03	0.11	43.3	27.9		0.09	6.6	711	0.17	0.005	1.06	24.28	515	0.021	9.57	6.75	12.5	< 1	< .01
7096	5.26	0.2	0.56	17	0.43	0.03	0.15	58.7	27.2		0.11	6.4	1194	0.12	0.005	0.81	35.92	604.1	0.017	11	9.95	16.9	1	< .01
7097	4.88	0.2	0.6	22	0.36	0.03	0.15	57	26.6		0.08	6.39	990	0.28	0.009	1.47	34.92	511.2	0.021	9.89	9.73	18.8	1	0.01
7098	4.37	0.2	0.31	27	0.4	0.02	0.1	50.2	40.2		0.1	5.51	881	0.28	0.022	1.37	29.48	466.4	0.093	8.3	8.33	9.7	< 1	0.02
7099	3.55	0.2	0.26	14	0.29	0.03	0.16	41.1	21.3		0.07	4.09	813	0.47	0.007	1.24	24.92	334.7	0.074	10.97	7.08	17.3	< 1	0.01
7100	2.98	0.1	0.21	17	0.26	0.03	0.17	31.1	18.2		0.06	2.46	479	0.51	0.007	1.3	18.63	197.3	0.08	8.94	5.4	19.1	< 1	< .01
7101	2.98	0.1	0.17	43	0.3	0.03	0.12	21	12.9		0.07	0.65	109	0.17	0.007	0.44	16.21	103.4	0.038	10.68	4.36	14.1	1	< .01
7102	1.82	< .1	0.14	110	0.22	0.03	0.11	13.1	8.6		0.06	0.35	65	0.69	0.006	0.08	9.1	23.1	0.013	9.64	2.62	10.7	< 1	< .01
7103	4.75	0.1	0.3	49	0.58	0.04	0.17	29.7	13.5		0.14	0.73	103	3.7	0.019	0.28	24.59	81	0.021	9.71	6.98	12.7	< 1	0.01
7104	1.14	0.1	0.58	18	0.13	0.04	0.14	14	29.3		0.03	6.38	974	0.22	0.008	2.37	6.36	500.5	0.021	11.26	2.11	12.4	< 1	0.01
7105	2.35	0.1	0.18	63	0.28	0.04	0.16	20.4	15.4		0.05	0.87	149	1.5	0.007	0.93	11.67	61.2	0.026	12.98	3.69	12.6	3	0.01
7106	1.36	< .1	0.12	84	0.16	0.03	0.07	13.1	5.7		0.03	0.41	45	0.62	0.006	0.2	7.49	27.7	0.007	11.23	2.28	5.8	< 1	< .01
7107	1.4	< .1	0.11	65	0.16	0.03	0.07	12.9	6.6		0.03	0.61	63	0.63	0.006	0.39	7.93	39.4	0.008	11.73	2.3	6.1	< 1	< .01

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
7108	1.46	< .1	0.11	71	0.18	0.03	0.07	13.5	7		0.03	0.64	66	0.66	0.006	0.38	7.78	41.1	0.009	11.94	2.35	6.6	< 1	< .01
7110	1.27	0.1	0.3	12	0.1	0.04	0.25	13.5	18.4		0.03	5.44	724	0.19	0.01	3.81	7.13	338.8	0.07	10.99	2.26	23.2	< 1	0.02
7111	2.26	0.1	0.34	15	0.19	0.03	0.19	21.6	22.4		0.05	4.92	655	0.46	0.008	3.55	12.37	360.5	0.064	10.46	3.74	20.8	< 1	< .01
7112	1.47	0.1	0.26	24	0.16	0.03	0.16	14.3	16.8		0.04	1.99	313	0.79	0.008	1.6	7.87	160	0.022	9.38	2.46	16	< 1	< .01
7113	2.35	0.1	0.51	16	0.21	0.03	0.15	20.6	20.3		0.06	6.94	850	0.2	0.008	2.39	11.76	544	0.02	10.13	3.76	16.4	< 1	< .01
7114	2.26	0.1	0.57	15	0.22	0.03	0.13	22.3	20.4		0.06	6.88	1118	0.29	0.011	1.47	13.3	561.4	0.023	10.77	4.2	14.1	< 1	< .01
7115	1.64	0.1	0.35	15	0.14	0.03	0.21	21	20.1		0.04	4.95	674	0.39	0.011	3.94	10.54	331	0.042	9.98	3.36	26.4	< 1	< .01
7116	3.37	0.1	0.42	26	0.26	0.03	0.23	41.4	20.6		0.06	4.95	925	0.87	0.037	1.2	21.44	346.2	0.049	9.76	6.75	22.3	< 1	< .01
7117	3.66	0.1	0.12	54	0.49	0.02	0.2	17.5	15.1		0.14	0.33	315	0.6	0.006	0.18	15.72	27.1	0.038	9.89	4.29	13.6	< 1	< .01
7118	3.03	0.1	0.1	94	0.43	0.04	0.17	15.6	14.6		0.14	0.49	771	0.46	0.009	0.13	13	32	0.027	9.61	3.48	17.1	1	< .01
7119	2.22	< .1	0.11	22	0.28	0.04	0.06	16.4	13.5		0.07	0.41	243	0.64	0.018	0.13	11.66	23.8	0.042	9.23	3.33	7.1	< 1	0.01
7120	1.76	< .1	0.1	33	0.21	0.03	0.12	13.2	16.1		0.06	0.4	252	0.92	0.009	0.16	8.82	25.3	0.035	9.44	2.53	17.2	< 1	0.01
7121	1.72	< .1	0.08	40	0.21	0.03	0.12	12.8	15.9		0.05	0.4	259	0.76	0.009	0.12	8.53	24.9	0.037	9.17	2.42	17	< 1	< .01
7122	1.65	< .1	0.08	28	0.2	0.03	0.11	12.5	15.8		0.06	0.39	254	0.77	0.008	0.17	8.45	24.5	0.036	8.92	2.4	15.7	1	0.01
7124	4.45	< .1	0.07	50	0.67	0.03	0.11	19.6	7.7		0.18	0.32	671	0.58	0.007	0.11	17.58	16.2	0.055	6.64	4.77	19.4	< 1	0.01
7125	2.75	0.1	0.15	111	0.37	0.04	0.14	15.4	19.2		0.11	0.52	564	0.83	0.022	0.07	13.04	26.9	0.017	16.3	3.5	13.3	< 1	< .01
7126	2.63	< .1	0.15	48	0.36	0.04	0.1	14.2	24.8		0.11	0.82	187	0.45	0.018	0.14	12.34	33.4	0.07	7.8	3.37	7.6	< 1	0.02
7127	2.75	< .1	0.1	48	0.31	0.02	0.15	16	24.4		0.09	0.39	160	0.43	0.007	0.19	13.01	26.6	0.026	8.18	3.47	15.6	< 1	< .01
7128	3.65	< .1	0.16	66	0.49	0.03	0.13	18.5	19.6		0.16	0.49	136	0.38	0.007	0.15	15.71	26.8	0.052	8.03	4.24	8.6	< 1	< .01
7129	3.41	0.1	0.18	86	0.5	0.03	0.15	16	28.5		0.16	0.62	187	0.46	0.007	0.25	14.44	42.9	0.053	8.86	3.83	12.7	< 1	< .01
7130	2.81	< .1	0.16	48	0.41	0.03	0.09	15.1	29.3		0.13	0.57	114	0.23	0.015	0.1	12.71	36.5	0.085	7.83	3.44	7.1	2	< .01
7131	2.19	0.1	0.19	59	0.26	0.04	0.1	13.1	25.3		0.08	0.62	484	0.28	0.013	0.1	10.52	24.4	0.132	8.03	2.86	6.6	1	< .01
7132	2.96	0.1	0.12	59	0.38	0.03	0.14	15	14.6		0.12	0.41	94	0.19	0.017	0.31	12.65	29.4	0.064	6.49	3.41	10.4	3	0.01
7133	3.48	< .1	0.13	30	0.39	0.03	0.17	19.6	22.9		0.11	0.46	153	0.16	0.017	0.28	15.77	28.9	0.056	12.08	4.35	15.4	1	0.01
7134	3.34	0.1	0.18	57	0.45	0.03	0.15	16.5	20.4		0.14	0.58	169	0.48	0.017	0.22	13.77	37.8	0.069	9.27	3.8	12.1	1	< .01
7135	3.43	0.1	0.17	58	0.48	0.03	0.12	16.3	21.3		0.16	0.53	168	0.44	0.019	0.21	15.2	37.1	0.067	9.8	3.89	11.7	2	< .01
7136	3.47	0.1	0.16	70	0.49	0.03	0.12	16.1	20.7		0.15	0.53	167	0.47	0.018	0.17	15.52	36.1	0.068	9.67	3.98	11.9	< 1	0.02
7138	3.25	< .1	0.15	75	0.42	0.02	0.09	15.6	23.7		0.13	0.46	162	0.11	0.025	0.23	14.67	30.1	0.05	8.92	3.93	12.7	< 1	0.01
7139	3.21	0.1	0.13	94	0.45	0.02	0.07	15.5	18.5		0.14	0.33	183	0.45	0.033	0.26	14.4	26.3	0.044	9.67	3.82	7.7	< 1	0.05
7140	3.19	0.1	0.14	59	0.42	0.02	0.11	15.7	17.2		0.13	0.37	187	0.3	0.007	0.15	15.05	21.6	0.053	9.73	4.04	13.3	2	0.01
7141	3.1	0.1	0.11	65	0.38	0.02	0.11	16.2	14.9		0.1	0.33	175	0.41	0.006	0.14	14.4	20.5	0.043	9.59	3.83	12.1	< 1	< .01
7142	3.04	< .1	0.14	33	0.32	0.02	0.1	17.5	12.7		0.08	0.26	115	1.74	0.02	0.19	15.77	13.4	0.048	12.62	4.27	12.2	< 1	0.01
7143	2.94	< .1	0.19	46	0.35	0.03	0.14	19.3	12.9		0.08	0.34	102	2.52	0.013	0.2	16.22	16.9	0.038	17.12	4.31	15.6	< 1	0.05
7144	1.94	0.1	0.11	30	0.24	< .02	0.09	8.6	10.8		0.08	0.3	477	1.85	0.017	0.43	8.05	21.2	0.186	5.77	2.14	7.2	2	0.19
7145	4.53	0.1	0.15	46	0.52	0.03	0.17	22.8	16.5		0.17	0.42	309	1.37	0.006	0.18	21.31	23.7	0.067	13.34	5.57	12.5	1	0.02
7146	1.82	0.1	0.1	16	0.19	0.02	0.09	16.4	13.2		0.04	0.27	110	0.55	0.006	0.22	11.7	13.7	0.025	9.4	3.36	12.1	< 1	0.01
7147	2.31	< .1	0.08	25	0.21	< .02	0.09	18.1	15.5		0.05	0.28	188	0.87	0.004	0.25	12.84	15.8	0.024	23.91	3.75	14.1	< 1	0.01

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
7148	2.02	< .1	0.11	24	0.19	0.02	0.11	18.5	13.4		0.04	0.27	101	1.13	0.006	0.22	11.53	15.8	0.028	13.06	3.41	14.9	< 1	0.01
7149	1.71	< .1	0.09	19	0.17	0.02	0.1	17.2	13.7		0.04	0.25	106	0.99	0.004	0.19	11.18	14.1	0.025	10.9	3.2	14.7	1	< .01
7150	1.89	< .1	0.08	25	0.17	0.02	0.1	17.7	14.3		0.04	0.26	106	0.98	0.004	0.21	11.82	14.2	0.025	11.05	3.32	14.8	1	< .01
7152	2.54	< .1	0.16	35	0.24	0.02	0.1	17.9	12.4		0.05	0.26	98	1.33	0.006	0.11	13.24	16.7	0.03	13.13	3.77	12.6	< 1	< .01
7153	5.58	0.1	0.13	42	0.68	0.03	0.13	24.9	18.1		0.2	0.33	218	1.2	0.007	0.13	26.32	19.4	0.051	12.55	6.65	13	1	0.01
7154	3.42	< .1	0.11	30	0.39	0.02	0.1	19.8	14.6		0.09	0.26	212	1.65	0.006	0.16	17.96	13.2	0.05	11.72	4.77	13.3	< 1	< .01
7155	4.61	0.1	0.17	29	0.56	0.02	0.14	23.5	15.4		0.18	0.29	217	0.89	0.008	0.44	21.33	26	0.1	11.42	5.63	15.1	1	0.02
7156	2.11	< .1	0.08	30	0.26	0.02	0.15	16.2	12.9		0.06	0.27	109	2.4	0.007	0.12	11.2	15.6	0.068	13.1	3.19	21	3	0.01
7157	2.11	< .1	0.07	20	0.23	0.02	0.12	15.7	15.5		0.05	0.27	138	1.93	0.006	0.15	11.36	15.8	0.052	10.78	3.22	17.9	1	< .01
7158	2.61	0.1	0.03	29	0.32	0.02	0.12	17.8	15.6		0.07	0.24	86	1.34	0.007	0.21	14.17	14.4	0.075	10.81	3.94	20.2	2	0.01
7159	3.29	< .1	0.13	40	0.4	0.02	0.11	18.8	15		0.1	0.3	117	1.86	0.007	0.14	16.48	18.3	0.057	13.31	4.53	16.9	< 1	< .01
7160	2.87	< .1	0.12	26	0.34	< .02	0.06	18	10.5		0.07	0.19	128	1.2	0.004	0.12	15.69	14.8	0.052	9.68	4.25	10.5	< 1	0.01
7161	1.88	< .1	0.1	16	0.18	< .02	0.08	15.3	12.9		0.04	0.23	144	0.72	0.004	0.17	10.98	13.1	0.039	8.75	3.15	12.3	< 1	0.01
7162	1.83	< .1	0.07	17	0.15	< .02	0.08	15.1	13.6		0.04	0.26	170	0.69	0.004	0.23	10.49	14.4	0.034	7.77	3.08	11.4	< 1	< .01
7163	1.89	< .1	0.09	13	0.17	0.02	0.09	15.9	14.2		0.05	0.26	178	0.82	0.004	0.24	11.36	15.4	0.038	8.6	3.37	12.4	< 1	0.02
7164	1.72	< .1	0.09	16	0.17	< .02	0.08	14.6	13.2		0.04	0.25	179	0.76	0.004	0.2	10.41	15.4	0.037	8.23	2.99	11	< 1	< .01
7166	2.34	< .1	0.15	16	0.23	0.02	0.08	17.2	14.4		0.04	0.24	199	1.03	0.006	0.17	12.43	17	0.038	9.97	3.6	14.6	< 1	0.01
7167	3.17	< .1	0.15	61	0.41	0.04	0.11	17.2	13.1		0.1	0.29	104	2.11	0.008	0.13	15.96	21.4	0.05	17.85	4.22	16.4	< 1	0.02
7168	1.73	< .1	0.03	6	0.14	< .02	0.07	13.7	11.2		0.03	0.19	128	0.45	0.004	0.26	10.64	9	0.043	6.28	2.96	11.4	< 1	0.01
7169	2.85	< .1	0.07	11	0.25	< .02	0.08	19.9	11.4		0.05	0.21	146	0.5	0.005	0.19	15.08	13.1	0.045	6.51	4.44	12.2	< 1	0.01
7170	2.15	0.1	0.11	13	0.16	0.02	0.07	17.5	13.7		0.03	0.24	165	0.55	0.004	0.14	11.92	14.7	0.018	8.43	3.65	10.4	< 1	0.02
7171	5.15	0.1	0.13	85	0.6	0.04	0.12	23	35.2		0.19	0.38	384	5.92	0.056	0.17	21.83	41.7	0.056	15.18	5.9	18	< 1	0.03
7172	2.22	0.1	0.06	32	0.21	0.02	0.09	15.5	15.2		0.05	0.24	150	0.84	0.011	0.22	11.66	15.1	0.025	8.42	3.48	17.1	< 1	0.03
7173	2.12	< .1	0.05	13	0.17	< .02	0.05	16.2	11		0.04	0.17	136	0.33	0.004	0.27	12.55	9.1	0.042	4.8	3.63	14.8	< 1	< .01
7174	2.34	0.1	0.06	31	0.21	0.02	0.09	16.5	15.6		0.04	0.26	118	1.41	0.005	0.21	11.86	17.1	0.033	10.73	3.59	15.1	< 1	< .01
7175	3.59	0.1	0.09	48	0.39	0.02	0.12	22.3	17.5		0.08	0.34	109	1.16	0.007	0.18	18.01	17.1	0.049	12.77	5.13	15.9	< 1	0.01
7176	3.75	0.1	0.14	52	0.43	0.03	0.14	20.9	17.7		0.1	0.4	135	1.62	0.008	0.14	18.41	20.6	0.053	13.62	5.02	18.4	< 1	< .01
7177	3.73	0.1	0.15	54	0.4	0.03	0.13	20.7	17.3		0.1	0.37	131	1.49	0.008	0.15	18.34	19.2	0.05	13.25	5.21	17	1	< .01
7178	3.55	0.1	0.16	48	0.4	0.03	0.12	20.3	15.2		0.11	0.35	128	1.44	0.007	0.16	17.91	18.4	0.048	12.63	5.09	15.5	< 1	0.01
7180	3	0.1	0.15	18	0.29	0.03	0.11	22.3	17.1		0.06	0.33	186	0.56	0.006	0.21	15.7	18.2	0.038	9.63	4.81	14.4	< 1	< .01
7181	3.33	0.1	0.15	46	0.38	0.07	0.17	17.3	28		0.1	0.42	230	1.3	0.005	0.21	15.97	21.8	0.034	10.1	4.32	18.4	< 1	0.02
7182	3.05	0.1	0.04	37	0.34	0.05	0.11	15.7	24		0.09	0.36	176	1.07	0.006	0.22	14.75	18.8	0.028	10.9	3.98	14.2	< 1	0.03
7183	3.74	0.1	0.09	50	0.43	0.04	0.13	16.3	14.8		0.12	0.77	273	1.69	0.009	0.18	16.15	20.7	0.073	10.73	4.2	12.3	3	0.06
7184	3.86	0.1	0.09	54	0.44	0.03	0.13	16.9	14.4		0.13	0.72	286	1.77	0.009	0.18	16.99	22.6	0.071	11.1	4.27	11.9	< 1	0.05
7184	3.76	0.1	0.11	50	0.46	0.03	0.12	16.4	13.8		0.12	0.72	287	1.73	0.009	0.18	15.97	22.5	0.072	11.05	4.11	11.4	< 1	0.06
7185	4.69	0.1	0.15	69	0.62	0.03	0.15	20.8	19.7		0.17	0.51	232	1.16	0.005	0.26	20.63	25.2	0.054	13.42	5.3	13.8	< 1	0.03
7186	4.15	0.1	0.13	73	0.48	0.04	0.14	20.1	16.9		0.11	0.38	228	1.33	0.005	0.21	19.52	24.3	0.048	14.95	5.25	15.8	< 1	0.03

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
7187	1.61	0.1	0.08	27	0.12	0.02	0.11	11.3	24.5		0.03	0.29	172	0.59	0.003	0.28	8.89	14.3	0.023	6.93	2.48	17.7	< 1	0.01
7188	2.5	0.1	0.12	53	0.3	0.03	0.15	15.2	14.3		0.07	0.29	180	2.22	0.003	0.21	11.46	25.8	0.043	13.68	3.26	17.1	4	0.02
7189	5.65	0.1	0.12	105	0.73	0.03	0.12	22.5	17.1		0.23	0.35	296	1.94	0.006	0.15	23.16	32.8	0.069	15.07	5.61	11	3	0.02
7194	2.14	< .1	< .02	7	0.15	< .02	0.08	16.9	11.2		0.03	0.15	91	0.18	0.005	0.36	12.29	7.5	0.045	5.45	3.7	18.2	< 1	0.01
7195	2.07	0.1	0.03	24	0.17	< .02	0.08	15.2	17.3		0.04	0.17	138	0.79	0.003	0.26	12.31	10.9	0.069	7.53	3.48	10.6	< 1	0.01
7196	3.87	< .1	0.12	27	0.45	0.02	0.13	21.7	18.8		0.13	0.34	197	1.02	0.007	0.24	19.62	18.3	0.051	9.44	5.48	14.5	< 1	0.02
7197	4.67	0.1	0.21	50	0.58	0.03	0.13	23	23.3		0.15	0.38	157	1.1	0.013	0.12	22.45	19	0.05	12.74	6.15	16.9	< 1	< .01
7198	2.39	0.1	0.17	19	0.21	0.02	0.09	17.8	14.4		0.05	0.25	127	0.9	0.008	0.11	12.95	14.4	0.034	10.08	3.78	12.8	< 1	0.02
7199	4.71	0.1	0.16	45	0.5	0.02	0.11	28	13.9		0.09	0.3	174	0.85	0.009	0.18	24.02	16.3	0.052	11.9	6.77	10.8	< 1	0.03
7200	3.2	0.1	0.12	57	0.38	0.02	0.16	22	19		0.11	0.31	277	1.15	0.01	0.24	17.48	16.6	0.065	12.47	4.8	15.4	< 1	0.05
7201	3.87	0.1	0.17	35	0.44	0.03	0.12	22.1	14.5		0.1	0.34	167	1.41	0.007	0.11	17.87	17.2	0.036	13.35	5.09	15.1	< 1	0.01
7202	4.48	0.1	0.18	35	0.52	0.02	0.11	24.7	16		0.13	0.35	166	1.27	0.006	0.17	22.17	16.8	0.038	11.69	6.26	13.3	1	< .01
7203	2.18	0.1	0.13	11	0.18	< .02	0.11	16.7	16.8		0.05	0.31	185	0.89	0.006	0.21	12.76	12.5	0.034	8.08	3.78	18.3	< 1	0.01
7204	2.3	< .1	0.12	15	0.21	0.02	0.12	17	17.8		0.05	0.34	207	0.95	0.006	0.22	13.16	13.4	0.034	8.61	3.87	20.1	< 1	0.01
7205	2.51	< .1	0.14	11	0.22	0.02	0.12	17.6	17.8		0.05	0.34	208	0.94	0.007	0.24	13.39	14.2	0.034	8.62	3.91	20.3	2	0.01
7207	4.82	0.1	0.15	45	0.57	0.03	0.12	22.6	17.6		0.16	0.37	161	1.54	0.008	0.11	21.89	19.5	0.03	14.4	5.94	14.4	< 1	< .01
7208	2.97	0.1	0.16	22	0.33	0.02	0.14	19.5	15.5		0.07	0.32	168	1.19	0.006	0.14	15.42	18	0.05	10.48	4.28	16.2	< 1	0.02
7209	3.04	0.1	0.12	34	0.35	0.02	0.11	18.3	13.2		0.09	0.28	112	1.4	0.006	0.13	15.81	14.6	0.052	10.85	4.39	17	2	0.01
7210	2.56	0.1	0.24	16	0.25	0.02	0.11	18.8	14.9		0.06	0.3	155	0.9	0.005	0.09	13.34	16.6	0.039	10.21	3.93	14.5	< 1	0.01
7211	2.03	< .1	0.12	19	0.19	< .02	0.06	15.2	10		0.04	0.19	129	0.76	0.004	0.11	11.27	12.2	0.033	7.41	3.28	9.1	1	0.01
7212	2.74	< .1	0.13	26	0.27	< .02	0.1	20	13.8		0.05	0.3	174	0.7	0.004	0.19	14.63	18.4	0.037	8.32	4.36	12.5	< 1	0.01
7213	1.36	< .1	0.09	19	0.13	< .02	0.07	13.1	9.9		0.03	0.2	79	1.12	0.004	0.14	7.93	11.1	0.039	9.67	2.51	10.9	< 1	0.02
7214	2.21	0.1	0.16	20	0.2	0.02	0.09	18.1	13.4		0.04	0.28	134	0.83	0.005	0.16	11.84	16.7	0.036	10.41	3.56	11.9	< 1	< .01
7215	2.35	< .1	0.1	19	0.26	< .02	0.07	17.5	11.4		0.06	0.21	166	0.78	0.005	0.14	13.79	12.2	0.043	8.63	3.79	8.9	< 1	0.01
7216	1.87	< .1	0.1	161	0.22	0.03	0.1	11.5	5.2		0.07	0.26	844	0.43	0.014	0.03	9.75	15.1	0.011	8.62	2.59	13.5	2	0.01
7217	4.65	0.1	0.16	108	0.65	0.03	0.12	20.7	13.2		0.21	0.6	749	0.62	0.015	0.18	19.17	55.6	0.088	8.4	5.03	12.1	2	0.02
7218	4.58	0.1	0.16	122	0.61	0.04	0.12	20.7	13.3		0.19	0.66	848	0.66	0.015	0.16	19.35	57.8	0.072	9.18	4.9	12.3	1	0.01
7218	4.28	0.1	0.16	104	0.6	0.03	0.11	19.8	11.8		0.18	0.64	825	0.62	0.015	0.12	18.37	55.7	0.068	8.78	4.7	11.7	2	0.01
7221	4	0.1	0.14	79	0.53	0.03	0.13	20.1	14.7		0.14	0.36	90	0.22	0.006	0.18	19.14	31.7	0.051	12.47	5.1	10.9	< 1	< .01
7222	3.46	0.1	0.15	83	0.44	0.05	0.11	15.8	32.7		0.12	0.6	140	1.24	0.028	0.16	15.62	44.5	0.028	14.62	4	11.2	< 1	0.01
7223	3.3	0.1	0.11	145	0.44	0.04	0.09	14.1	9.9		0.14	0.39	2011	0.49	0.013	0.05	14.18	37.2	0.022	13.15	3.71	10.4	< 1	< .01
7224	2.64	< .1	0.06	32	0.26	0.02	0.09	17.4	17		0.05	0.25	51	0.22	0.006	0.21	13.48	14.9	0.037	9.84	3.85	9.3	< 1	< .01
7225	5	0.1	0.12	88	0.69	0.03	0.08	20.2	22		0.19	0.48	608	0.85	0.006	0.15	20.97	39	0.039	8.98	5.4	8.5	< 1	0.01
7226	2.74	0.1	0.15	45	0.37	0.04	0.13	14.5	27.6		0.11	0.5	474	2.41	0.007	0.18	11.65	41.9	0.044	13.43	3.22	11	2	0.01
7227	1.71	< .1	0.11	100	0.2	0.03	0.08	11.9	16.3		0.05	0.45	188	0.29	0.023	0.13	9.19	21.4	0.015	11.18	2.57	10.2	< 1	0.01
7228	1.7	< .1	0.15	27	0.22	0.04	0.13	12.8	22.4		0.06	0.54	289	0.77	0.01	0.18	8.7	35	0.04	11.45	2.53	13.4	< 1	0.01
7229	1.86	0.1	0.09	21	0.22	0.03	0.17	12.7	25.8		0.06	0.75	512	0.64	0.008	0.27	9.85	41.2	0.103	9.99	2.83	13.2	< 1	0.01

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
7230	1.98	< .1	0.05	28	0.19	0.02	0.11	13.2	15.1		0.04	0.3	137	0.41	0.004	0.14	10.1	20.6	0.039	9.58	2.89	11.4	< 1	0.01
7231	4.19	0.1	0.18	60	0.5	0.03	0.14	18.9	16.6		0.13	0.51	321	0.48	0.007	0.17	17.61	36.3	0.042	9.38	4.78	12	< 1	0.01
7232	3.6	0.1	0.15	45	0.43	0.03	0.14	17.5	18.3		0.11	0.49	305	0.47	0.006	0.18	15.82	35.5	0.041	9.3	4.31	11.4	< 1	0.02
7232	3.48	0.1	0.14	48	0.45	0.03	0.15	17.1	17.7		0.11	0.48	303	0.46	0.006	0.17	15.96	35.3	0.04	9.24	4.24	11.4	< 1	0.02
8001	3.71	0.1	0.14	83	0.45	0.09	0.12	15.8	16.2		0.14	0.76	275	1.21	0.029	0.14	17.48	26.1	0.067	13.01	4.41	10.8	1	0.02
8002	7.31	0.1	0.14	104	0.91	0.08	0.15	28.6	16.1		0.27	0.37	302	2.02	0.006	0.13	30.39	35.1	0.096	16.51	7.6	14.5	< 1	0.01
8003	4.14	0.1	0.12	87	0.48	0.07	0.13	18.4	14.9		0.14	0.73	296	1.58	0.007	0.16	18.17	27.1	0.069	13.39	4.81	13	< 1	0.01
8004	4.04	0.1	0.1	79	0.47	0.05	0.13	16.7	15.1		0.15	0.76	263	1.4	0.007	0.15	17.53	25.3	0.073	12.97	4.5	12.6	2	0.01
8004	3.63	0.1	0.12	80	0.44	0.06	0.12	16.6	14.5		0.15	0.73	248	1.39	0.007	0.15	17.45	24.3	0.07	12.44	4.32	12.3	1	0.01
8005	4.8	0.1	0.12	96	0.59	0.04	0.13	21	18.5		0.15	0.45	455	1.89	0.006	0.16	21.55	38.3	0.076	17.61	5.55	12.5	< 1	0.01
8006	4.36	0.1	0.16	83	0.54	0.04	0.12	19.3	14.8		0.15	0.33	269	1.64	0.006	0.15	20.42	34.4	0.077	14.95	5.23	12.6	1	< .01
8007	4.13	0.1	0.11	81	0.52	0.04	0.16	18.1	14.6		0.15	0.55	317	1.6	0.006	0.16	17.91	28.9	0.073	14.57	4.65	15.8	1	0.01
8008	3.81	0.1	0.08	69	0.47	0.04	0.12	16.4	14.4		0.13	0.64	294	1.57	0.008	0.16	16.69	26.1	0.072	13.76	4.36	11.7	3	0.02
8009	4.01	0.1	0.13	79	0.5	0.04	0.14	16.9	16.6		0.14	0.68	343	1.4	0.008	0.23	17.75	33.1	0.073	14.14	4.34	13.5	1	0.03
8010	5.44	0.1	0.12	106	0.65	0.04	0.13	22.3	14.5		0.18	0.33	260	1.79	0.005	0.18	23.39	27.7	0.073	14.96	5.79	15.2	< 1	0.01
8011	4.5	0.1	0.12	75	0.52	0.03	0.12	17.1	16.4		0.15	0.6	394	2.1	0.008	0.13	18.14	34.1	0.067	15.38	4.54	12	< 1	0.02
8013	5.07	0.1	0.15	97	0.66	0.02	0.13	21.1	17.5		0.18	0.44	343	2.26	0.006	0.14	21.43	41.5	0.075	15.58	5.49	13.5	3	0.03
8014	4.01	0.1	0.12	71	0.49	0.02	0.13	17.5	16.9		0.15	0.65	338	1.78	0.008	0.15	17.16	29.7	0.067	15.01	4.56	12.7	4	0.05
8015	4.59	0.1	0.12	100	0.56	0.03	0.16	19.6	14.2		0.17	0.32	341	1.98	0.005	0.15	20.79	31.1	0.07	14.61	5.06	15.9	4	0.01
8016	4.54	0.1	0.08	103	0.56	0.03	0.16	19.9	14.9		0.17	0.32	272	2.06	0.005	0.16	21.4	31	0.071	15.89	5.12	15.7	3	< .01
8016	4.63	0.1	0.11	119	0.59	0.03	0.17	20	14.3		0.17	0.33	285	2.14	0.005	0.15	20.86	32.1	0.072	16	5.15	15.7	2	0.01
8017	4.01	0.1	0.14	100	0.49	0.04	0.13	17.9	14.8		0.15	0.61	349	1.63	0.007	0.18	19.6	29.3	0.073	14.45	4.84	12.5	< 1	0.02
8018	3.61	0.1	0.11	87	0.47	0.04	0.12	15.8	17.8		0.14	0.67	275	1.39	0.008	0.16	16.81	25.8	0.07	12.6	4.19	12.1	< 1	0.04
8019	3.72	0.1	0.11	91	0.49	0.03	0.13	17.2	18.1		0.14	0.7	339	1.66	0.007	0.16	17.71	30.5	0.08	12.79	4.48	11.9	1	0.01
8020	2.88	0.1	0.1	57	0.37	0.02	0.06	12.2	11.2		0.11	0.68	160	1.45	0.007	0.13	13.03	15.9	0.063	10.39	3.25	6.4	2	0.03
8021	5.6	0.1	0.11	110	0.71	0.08	0.14	26.6	15.7		0.24	0.5	337	0.82	0.006	0.19	24.7	56.8	0.061	14.27	6.07	13.9	< 1	0.01
8022	4.68	0.1	0.11	105	0.61	0.08	0.12	23	15.8		0.19	0.56	380	1.08	0.006	0.17	21.95	73.6	0.065	14.37	5.45	11.9	3	< .01
8023	4.68	0.1	0.09	98	0.6	0.06	0.13	20.2	15.4		0.18	0.63	350	0.9	0.006	0.27	20.05	42.4	0.063	11.94	4.9	12.2	< 1	0.04
8025	3.62	0.1	0.07	109	0.48	0.05	0.13	16.7	14.2		0.13	0.66	378	0.91	0.006	0.22	17.32	32.9	0.069	13.21	4.24	11.4	2	0.03
8026	4.09	0.1	0.11	99	0.47	0.04	0.13	17	12.7		0.14	0.66	324	1.1	0.006	0.16	18.63	27.1	0.07	13.49	4.25	12.7	2	0.02
8027	3.53	0.1	0.1	65	0.45	0.05	0.13	17.1	14.9		0.12	0.61	358	0.97	0.006	0.12	17.54	28.6	0.067	12.53	4.38	11.5	< 1	0.03
8028	3.9	0.1	0.1	63	0.46	0.04	0.15	19	17.1		0.12	0.63	328	0.98	0.007	0.17	19.22	27.9	0.069	13.08	4.61	13.8	< 1	0.03
8028	3.69	0.1	0.08	63	0.44	0.04	0.15	17.5	16.5		0.12	0.61	318	0.96	0.006	0.13	17.99	26	0.066	12.43	4.41	13.1	2	0.02
8029	4.03	0.1	0.11	85	0.48	0.03	0.15	18.4	14.5		0.15	0.76	386	0.99	0.006	0.15	18.7	29.4	0.066	19.41	4.68	12.8	4	0.04
8030	3.67	0.1	0.14	104	0.48	0.03	0.17	17.9	17.1		0.15	0.68	236	1.41	0.008	0.14	18.06	29.5	0.071	13.31	4.49	15.2	1	0.04
8031	3.14	0.1	0.11	71	0.38	0.03	0.14	14.3	15.7		0.11	0.71	219	0.91	0.007	0.2	14.29	26.5	0.058	10.66	3.48	11.6	< 1	0.07
8032	3.17	< .1	0.08	58	0.38	0.02	0.11	15	13.3		0.12	0.75	277	0.75	0.007	0.25	15.67	25.1	0.066	10.84	3.98	11	< 1	0.03

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
8033	3.09	< .1	0.06	67	0.38	0.02	0.11	14.3	13.4		0.1	0.66	497	0.59	0.007	0.24	15.04	24.6	0.062	10.02	3.69	9.7	1	0.05
8034	4.18	< .1	0.07	51	0.49	0.02	0.16	20.1	10.2		0.14	0.57	391	0.88	0.005	0.27	21.48	31.1	0.062	11.73	5.07	11.9	< 1	0.04
8035	4.11	0.1	0.14	95	0.54	0.03	0.16	19.4	15		0.15	0.72	369	1.06	0.007	0.24	20.11	43.9	0.069	14.08	5	13.9	< 1	0.05
8037	3.49	0.1	0.12	47	0.43	0.03	0.17	18.7	15.5		0.14	0.63	343	0.95	0.007	0.22	18.03	27.3	0.082	12.43	4.68	13.3	< 1	< .01
8038	3.73	0.1	0.12	90	0.49	0.03	0.2	18.2	16.5		0.14	0.68	342	1.12	0.007	0.22	19.39	32.2	0.075	13.75	4.79	17.2	2	0.04
8039	3.9	0.1	0.11	78	0.47	0.03	0.17	18.6	15.4		0.13	0.63	341	1.03	0.006	0.22	19.74	32.8	0.071	13.64	4.74	14.9	1	< .01
8040	3.54	0.1	0.12	88	0.47	0.04	0.17	18.4	14.6		0.15	0.69	388	1.03	0.006	0.21	18.7	30.3	0.069	13.34	4.78	14.5	< 1	0.04
8040	3.84	0.1	0.11	89	0.5	0.03	0.17	19.1	15.2		0.14	0.71	401	1.11	0.007	0.2	19.93	31.7	0.074	13.79	4.9	14.8	< 1	0.03
8041	4.22	0.1	0.13	79	0.54	0.04	0.19	21.5	17.8		0.17	0.53	211	1.95	0.007	0.28	21.34	33.9	0.079	14.57	5.37	16.2	1	< .01
8042	2.88	0.1	0.07	67	0.38	0.03	0.13	14.4	13.8		0.12	0.71	242	1.16	0.019	0.32	14.66	15.5	0.068	10.07	3.6	10.7	< 1	0.1
8043	2.83	0.1	0.07	42	0.34	0.02	0.11	14.9	9		0.1	0.75	182	0.79	0.005	0.14	14.87	14.6	0.062	8.53	3.71	9.1	< 1	0.02
8044	3.33	0.1	0.1	53	0.44	0.03	0.15	20	12.3		0.13	1.11	689	1.04	0.007	0.27	19.93	27.6	0.079	11.57	5.07	12.1	< 1	0.02
8045	3.21	0.1	0.13	56	0.4	0.03	0.15	15	17.2		0.12	0.78	351	1.49	0.01	0.14	15.92	26.4	0.064	11.94	3.92	12.6	< 1	0.03
8046	3.56	0.1	0.13	79	0.46	0.04	0.15	16.5	17.7		0.15	0.62	258	1.41	0.009	0.11	16.66	25.1	0.071	13.29	4.26	13.2	2	0.06
8047	3.7	0.1	0.2	73	0.47	0.05	0.16	17.9	17.5		0.16	0.64	252	1.57	0.01	0.16	18.36	22.2	0.064	13.11	4.54	14.1	4	0.02
8049	3.58	0.1	0.16	79	0.46	0.04	0.15	17.5	16.3		0.14	0.7	266	2.02	0.008	0.12	16.96	23.9	0.07	13.58	4.4	14.3	2	0.01
8050	4.02	0.1	0.2	73	0.5	0.05	0.21	19.6	21.1		0.16	0.47	206	1.87	0.009	0.16	19.49	30.2	0.071	14.69	4.83	17.9	3	< .01
8051	4	0.1	0.15	101	0.53	0.04	0.18	19.7	19.1		0.17	0.43	301	2.33	0.008	0.12	19.2	33.5	0.075	15.74	4.88	17.3	< 1	< .01
8052	3.91	0.1	0.15	81	0.52	0.04	0.17	18.4	18.6		0.16	0.5	295	2.46	0.008	0.13	19.24	30.5	0.076	15.5	4.65	16.8	< 1	< .01
8052	3.77	0.1	0.17	86	0.49	0.04	0.17	17.1	17.6		0.14	0.5	305	2.41	0.008	0.12	18	29.6	0.07	14.65	4.35	15.9	< 1	0.01
8053	3.53	0.1	0.12	62	0.47	0.03	0.19	18.3	18.5		0.14	0.65	507	1.86	0.007	0.15	18.45	27.1	0.066	12.68	4.6	15.6	< 1	< .01
8054	3.85	0.1	0.15	74	0.51	0.03	0.15	18	18.8		0.14	0.62	323	2.43	0.008	0.13	18.47	29.4	0.069	15.46	4.5	15	1	< .01
8055	2.63	0.1	0.12	81	0.36	0.02	0.11	12.7	16.4		0.11	0.8	300	1.39	0.017	0.32	12.66	24.9	0.058	10.35	3.13	11.7	3	0.11
8056	3.05	0.1	0.15	76	0.38	0.02	0.12	13.1	14.8		0.12	0.82	347	2.03	0.02	0.22	13.53	23.4	0.066	11.76	3.33	10.7	2	0.17
8057	3.47	0.1	0.13	98	0.47	0.02	0.11	17.2	16.1		0.13	0.74	286	2.17	0.025	0.28	17.93	24.1	0.075	14.48	4.46	11.3	5	0.18
8058	2.93	0.1	0.12	79	0.41	0.02	0.12	13.8	16.1		0.12	0.76	356	1.65	0.025	0.23	14	27.9	0.062	12.17	3.53	11.6	4	0.21
8059	2.49	0.1	0.38	38	0.34	0.03	0.17	11.1	17.7		0.11	0.41	239	0.89	0.015	0.19	10.77	21.8	0.039	10.88	2.71	19	3	6.72
8061	4.54	0.1	0.15	74	0.58	0.04	0.19	22.5	22.9		0.19	0.95	377	0.91	0.011	0.18	22.54	34.7	0.062	13.54	5.61	18.6	2	0.03
8062	4.38	0.1	0.17	82	0.56	0.04	0.18	20	31		0.17	0.96	305	1.15	0.009	0.45	20.75	29	0.09	13.31	5.15	17.7	< 1	0.02
8063	3.74	0.1	0.15	61	0.53	0.04	0.15	18.8	18.2		0.16	0.72	265	1.6	0.01	0.16	18.62	27.4	0.065	14.23	4.7	13.2	2	0.01
8064	4.38	< .1	0.13	59	0.53	0.03	0.15	17.6	18.9		0.15	0.75	251	1.51	0.01	0.1	20.01	28.7	0.058	14.56	5	11.8	< 1	0.03
8064	4.47	0.1	0.14	59	0.54	0.04	0.14	18.7	20.7		0.16	0.78	261	1.57	0.011	0.1	19.98	29.9	0.062	15.37	5.06	11.9	2	0.01
8065	3.67	< .1	0.15	66	0.47	0.03	0.12	15.5	16.7		0.14	0.86	301	2.06	0.008	0.12	17.87	26.9	0.066	13.21	4.37	12.1	2	< .01
8066	2.15	< .1	0.16	42	0.31	0.02	0.07	7.6	10.6		0.09	0.34	173	1.47	0.008	0.14	9.15	13.3	0.04	8.27	2.2	8.3	6	4.69
8067	4.12	< .1	0.22	43	0.51	0.03	0.18	18.4	22.9		0.16	0.63	359	0.93	0.02	0.09	19.6	31.5	0.053	14.63	5.01	16.6	3	0.07
8068	3.78	0.1	0.19	47	0.45	0.03	0.17	18.1	22.8		0.14	0.56	353	1.22	0.014	0.09	18.62	33	0.048	13.87	4.7	16.4	3	0.02
8082	5.91	0.1	0.46	133	0.73	0.03	0.15	33.8	22.8		0.24	6.41	1040	0.37	0.025	0.65	26.71	490.8	0.085	12.89	6.75	18.3	3	< .01

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
8083	4.05	0.1	0.31	25	0.46	0.02	0.05	27.1	26.1		0.14	9.16	1051	1.05	0.008	0.28	17.53	786.6	0.074	7.92	4.49	5.9	2	0.01
8084	3.01	0.2	0.38	35	0.33	0.02	0.09	21.1	19.1		0.12	8.13	876	0.13	0.009	0.47	14.21	656.5	0.1	9.72	3.84	9.6	1	< .01
8085	4.23	0.1	0.39	37	0.43	0.02	0.08	32	31.8		0.11	8.02	936	0.11	0.009	0.32	20.58	561.3	0.092	9.52	5.53	8.6	2	< .01
8086	3.08	0.2	0.4	48	0.39	0.02	0.16	19.5	21.8		0.12	6.16	437	0.43	0.066	0.61	14.11	484.1	0.101	8.15	3.68	14.5	1	< .01
8087	2.22	< .1	0.14	60	0.25	0.02	0.04	12.4	4.4		0.07	0.21	59	0.23	0.015	0.02	10.49	19.5	0.003	8.85	2.85	7.1	< 1	0.02
8088	4.69	0.1	0.16	70	0.59	0.03	0.08	17.5	12.5		0.18	0.48	246	2.08	0.013	0.15	19.77	38.9	0.048	13.49	4.87	10.1	1	0.01
8089	4.05	0.1	0.41	69	0.51	0.03	0.09	19.1	19.7		0.15	4.67	513	0.57	0.015	0.65	17.2	328.8	0.061	11.27	4.6	9	< 1	0.01
8090	3.84	0.3	0.43	48	0.48	0.02	0.09	24.6	31.3		0.16	7.12	1103	0.87	0.014	1.13	16.47	525.2	0.082	10.93	4.29	9.9	< 1	< .01
8091	3.45	0.1	0.25	22	0.24	0.02	0.09	45.1	23.9		0.06	6.18	1030	0.15	0.009	0.36	24.73	513.6	0.094	8.5	7.34	9.1	< 1	0.02
8092	4.66	0.1	0.54	14	0.29	0.02	0.08	51.7	31.7		0.09	7.86	782	0.09	0.005	0.41	30.45	557.3	0.051	8.91	8.62	9.1	< 1	0.02
8093	4.21	0.2	0.58	20	0.3	0.02	0.08	50.1	32.7		0.08	7.9	700	0.12	0.005	0.49	28.83	550.2	0.054	8.57	8.25	8.9	< 1	< .01
8094	4.65	0.2	0.59	21	0.31	0.03	0.08	53.1	34.3		0.08	8.09	719	0.14	0.005	0.52	31.33	562.4	0.059	8.95	8.86	9.8	< 1	0.01
8096	4.65	0.1	0.42	26	0.35	0.02	0.1	50.6	32.3		0.11	6.64	927	0.28	0.009	0.37	31.02	510.7	0.071	9.65	8.81	9.9	< 1	0.01
8097	4.08	0.1	0.33	20	0.34	0.02	0.09	40.3	22.9		0.1	4.51	654	0.43	0.016	0.41	25.27	357.1	0.086	7.97	7.27	10	1	0.02
8098	3.3	0.1	0.2	25	0.34	0.02	0.09	24.7	22.7		0.1	2.64	694	0.54	0.031	0.26	17.82	159.1	0.078	6.42	5.06	10.3	< 1	0.04
8099	4.26	0.1	0.4	39	0.38	0.03	0.1	41.4	29.2		0.12	5.78	759	0.47	0.009	0.31	26.1	425	0.08	9.62	7.73	10.1	< 1	0.02
8100	4.08	0.1	0.2	49	0.53	0.03	0.09	16.3	15.1		0.18	0.73	709	1.05	0.007	0.11	16.7	66.1	0.068	10.81	4.19	9.2	< 1	0.01
8101	4.96	0.1	0.21	59	0.59	0.04	0.08	18.7	23.9		0.18	0.75	234	0.76	0.01	0.09	19.87	91.8	0.043	11.67	4.92	8.6	< 1	0.01
8102	4.9	0.1	0.26	61	0.59	0.04	0.08	18.3	28.3		0.18	0.7	455	1.39	0.01	0.1	21.1	59	0.035	11.94	5.19	7.1	< 1	0.01
8103	5.07	0.1	0.31	38	0.62	0.03	0.14	26	15.1		0.22	0.95	203	3.82	0.025	0.22	24.22	104.9	0.034	10.79	6.28	14.1	< 1	0.01
8104	5.37	0.1	0.47	34	0.54	0.03	0.08	33.9	29.7		0.17	6.75	687	0.39	0.015	0.58	25.39	473.1	0.07	9.36	6.47	8.8	< 1	< .01
8105	3.94	0.1	0.27	56	0.46	0.02	0.11	19	20		0.16	4.01	630	0.56	0.088	8.94	16.36	350.7	0.082	8.06	4.03	10.8	< 1	0.13
8106	7.26	0.1	0.2	81	0.94	0.04	0.12	25.7	15.5		0.3	0.54	483	1.62	0.01	0.14	29.05	94.5	0.06	14	7.34	12.5	< 1	0.04
8107	7.52	0.1	0.18	78	1	0.03	0.11	26.7	16		0.32	0.54	474	1.59	0.01	0.12	30.95	94.8	0.056	14.1	7.62	12.1	4	0.03
8108	7.5	0.1	0.19	82	0.98	0.03	0.11	26	15.5		0.32	0.54	472	1.61	0.01	0.12	30.06	94.6	0.056	13.78	7.35	12.2	< 1	0.02
8110	5.3	0.2	0.49	40	0.55	0.03	0.17	25.7	19.9		0.15	6.5	684	0.12	0.016	0.74	24.2	449.1	0.077	9.67	5.86	16.3	< 1	< .01
8111	5.32	0.1	0.15	94	0.61	0.03	0.14	21.6	15.2		0.19	0.6	340	1.44	0.007	0.18	22.58	78.3	0.056	14.47	5.66	14.9	< 1	< .01
8112	6	0.2	0.44	45	0.65	0.02	0.11	24.7	29.1		0.2	6.69	717	0.45	0.011	0.47	25.7	443.5	0.066	9.07	6.41	11.5	< 1	0.01
8113	6.29	0.2	0.45	78	0.77	0.02	0.1	32.5	22.1		0.27	6.97	824	0.31	0.016	1.63	27.99	642.6	0.062	10.07	6.75	12.9	< 1	0.01
8114	3.19	0.1	0.4	43	0.35	0.02	0.17	20.1	22.9		0.13	6.84	1034	0.5	0.057	0.61	15.3	566.9	0.112	11.18	4.06	15.2	< 1	0.05
8115	4.82	0.1	0.44	45	0.5	0.03	0.12	30	26.7		0.15	6.56	767	0.47	0.037	0.57	21.96	506.7	0.087	9.33	5.76	10.9	< 1	0.01
8116	4.01	0.2	0.41	54	0.38	0.03	0.14	28.4	25.4		0.1	5.7	664	0.42	0.029	0.72	21.15	397.1	0.075	8.86	5.69	14.9	< 1	0.01
8117	4.57	0.1	0.15	83	0.55	0.04	0.17	18.6	16		0.16	0.4	809	2.3	0.008	0.13	19.68	39.7	0.07	15.57	5.03	14.5	< 1	0.02
8118	3.66	0.1	0.14	80	0.45	0.03	0.1	15	15.6		0.13	0.54	180	0.24	0.011	0.06	16.79	41.8	0.023	12.04	4.03	10.7	< 1	< .01
8119	4.42	0.1	0.12	95	0.51	0.03	0.05	18.2	8.1		0.16	0.32	454	0.39	0.034	0.04	19.71	21.9	0.011	12.29	4.98	8.4	< 1	0.03
8120	3.41	< .1	0.11	47	0.38	0.03	0.05	15.2	6.1		0.11	0.25	326	0.27	0.016	0.02	15.55	12.3	0.015	11.91	3.99	5.7	< 1	0.01
8121	3.3	< .1	0.12	54	0.41	0.03	0.05	14.9	8		0.11	0.27	437	0.38	0.016	0.02	16.26	15.2	0.018	12.77	4.02	6.2	< 1	0.01

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
8122	3.28	0.1	0.11	59	0.38	0.03	0.05	14.5	7.7		0.13	0.26	429	0.36	0.015	0.04	15.4	14.3	0.017	12.64	3.98	5.8	< 1	0.01
8124	3.58	< .1	0.1	53	0.37	0.02	0.05	16.7	8.3		0.11	0.29	108	0.18	0.01	0.04	15.59	13.1	0.016	8.56	3.95	6.9	< 1	0.04
8125	4.42	0.1	0.14	108	0.55	0.04	0.13	20.3	19.5		0.15	0.55	560	0.4	0.032	< .02	18.93	52.1	0.01	13.11	4.76	14.9	< 1	0.03
8126	5.81	0.4	0.2	59	0.89	0.03	0.1	20.1	20.9		0.29	0.73	2909	4.7	0.025	0.54	19.97	83.3	0.3	12.66	4.82	8.2	2	0.06
8127	3.92	< .1	0.19	124	0.49	0.03	0.08	15.9	8.5		0.14	0.35	159	0.44	0.009	0.11	15.35	46.3	0.011	13.91	3.84	8.3	< 1	0.03
8128	4.77	0.1	0.15	61	0.66	0.03	0.11	18.3	14.5		0.22	0.54	1037	1.67	0.021	0.1	18.28	39.9	0.168	9.48	4.33	10.3	< 1	0.02
8129	3.29	0.1	0.27	74	0.45	0.03	0.1	14.3	18		0.16	0.56	688	0.91	0.009	0.09	14.24	44.9	0.064	10.36	3.49	11.3	< 1	0.02
8130	3.14	< .1	0.27	33	0.37	0.04	0.08	12.7	18.7		0.12	0.53	984	1.2	0.014	0.05	12.58	61.4	0.074	8.26	3.12	7.8	< 1	0.02
8131	3.1	0.1	0.15	37	0.43	0.02	0.08	11.9	17.9		0.14	0.5	4853	1.8	0.01	0.11	12.03	41.8	0.171	6.92	2.92	6.8	< 1	0.03
8132	3.18	< .1	0.21	53	0.39	0.04	0.12	14.8	25.9		0.13	0.58	141	0.19	0.011	0.09	13.69	37.1	0.045	10.43	3.5	10.8	< 1	0.01
8133	3.32	0.1	0.19	66	0.41	0.03	0.12	15.2	18.2		0.13	0.76	276	0.54	0.018	0.07	14.35	33.7	0.076	8.58	3.74	9.5	< 1	< .01
8134	3.48	0.1	0.2	62	0.46	0.03	0.12	15.8	21.5		0.14	0.85	215	0.39	0.018	0.1	14.66	39.7	0.066	11.92	3.77	11.6	< 1	< .01
8135	3.41	< .1	0.25	54	0.43	0.03	0.12	15.4	20.7		0.14	0.76	192	0.36	0.017	0.08	14.66	39.3	0.068	11.05	3.66	11.3	< 1	0.01
8136	3.46	0.1	0.24	54	0.45	0.03	0.12	15.4	20.2		0.14	0.76	192	0.38	0.017	0.1	14.6	39.2	0.065	10.96	3.66	11.3	< 1	0.01
8138	2.79	0.1	0.2	75	0.36	0.03	0.11	14.9	16.8		0.12	0.43	169	0.78	0.027	0.21	14.13	20.6	0.03	11.15	3.52	11.8	4	0.03
8139	3	0.1	0.21	62	0.39	0.02	0.09	11.6	19.8		0.12	0.54	1019	1.21	0.03	0.31	12.05	42.2	0.059	8.53	2.9	8.4	11	1.87
8140	3.56	< .1	0.2	48	0.42	0.03	0.12	16.2	19.3		0.12	0.43	156	0.24	0.018	0.12	15.62	25.4	0.055	10.94	4.04	13.3	2	< .01
8141	2.66	< .1	0.15	40	0.38	0.02	0.07	11.2	11.6		0.12	0.41	407	0.25	0.018	0.23	11.21	29	0.042	7.32	2.71	5	1	0.08
8142	5.1	0.1	0.18	98	0.73	0.03	0.14	25.6	16		0.24	0.36	225	4.19	0.036	0.15	24.16	26.7	0.075	19.24	6.32	13.2	4	0.03
8143	5.81	0.1	0.18	110	0.91	0.03	0.16	28.4	17.6		0.29	0.36	369	4.27	0.009	0.13	27.05	43.2	0.076	18.76	6.93	14.9	4	0.03
8144	1.2	< .1	0.1	33	0.19	< .02	0.07	6	8.9		0.06	0.23	2148	17.21	0.018	0.36	5.63	25.4	0.353	4	1.44	5.2	21	0.49
8145	3.92	< .1	0.15	57	0.5	0.03	0.17	21.8	19.2		0.17	0.39	1166	5.33	0.006	0.08	20.43	27.6	0.058	13.89	5.31	11.6	< 1	0.03
8146	5.25	0.1	0.17	83	0.69	0.03	0.14	25.1	14.9		0.2	0.36	251	0.99	0.007	0.15	25.47	22.6	0.057	16.05	6.56	12.2	< 1	0.03
8147	5.43	0.1	0.16	61	0.69	0.03	0.12	26	13.2		0.18	0.31	204	1.62	0.009	0.16	25.93	20.1	0.063	16.34	6.78	11.8	< 1	0.03
8148	5.43	0.1	0.2	89	0.69	0.03	0.12	26	13.2		0.21	0.29	191	1.53	0.009	0.12	27.05	20.2	0.052	16.48	7.13	12.3	1	0.03
8149	5.27	0.1	0.15	75	0.69	0.03	0.12	26.2	12.8		0.21	0.29	184	1.35	0.009	0.13	26.21	20	0.056	15.56	6.83	11.8	< 1	0.02
8150	5.14	0.1	0.18	71	0.71	0.02	0.11	25.3	12.7		0.2	0.29	189	1.38	0.009	0.11	26.07	20.2	0.055	15.7	6.71	11.4	< 1	0.02
8152	5.92	0.1	0.14	68	0.84	0.03	0.13	25.1	13.9		0.27	0.35	169	3.36	0.008	0.1	27.21	22.7	0.053	17.33	6.95	13.1	3	0.02
8153	4.36	0.1	0.15	69	0.57	0.02	0.13	21	14.2		0.18	0.34	276	2.5	0.007	0.07	19.87	27.3	0.076	14.78	5.23	12.1	< 1	0.03
8154	4.63	0.1	0.14	58	0.65	0.03	0.12	22.7	13.4		0.2	0.27	198	2.42	0.006	0.11	21.94	23	0.07	15.05	5.87	11.2	2	0.02
8155	3.9	0.1	0.24	30	0.5	0.02	0.17	22.4	15.6		0.15	0.3	328	1.75	0.008	0.21	20.98	29.9	0.066	12.07	5.6	13.1	1	< .01
8156	4.28	0.1	0.13	59	0.57	0.02	0.09	19.3	8.7		0.18	0.19	105	1.98	0.006	0.09	20.54	16.3	0.063	13.5	5.3	9	4	0.02
8157	4.08	0.1	0.13	50	0.52	0.02	0.13	21.3	13.1		0.16	0.27	109	2.37	0.006	0.12	20.8	17.7	0.066	14.45	5.48	12.3	2	0.01
8158	3.34	0.1	0.17	73	0.45	0.03	0.15	18	12.3		0.13	0.3	76	2.94	0.008	0.07	16.72	14.9	0.076	19.3	4.33	15	3	0.01
8159	4.15	0.1	0.13	77	0.55	0.04	0.17	21.7	13.6		0.18	0.29	92	3.22	0.012	0.11	19.71	19.8	0.078	19.82	5.23	13.9	3	0.06
8160	6.03	0.1	0.11	87	0.83	0.03	0.1	22	13.6		0.26	0.25	307	2.4	0.008	0.14	27.07	27.7	0.063	13.27	6.97	11.1	< 1	< .01
8161	5.31	0.1	0.15	82	0.76	0.02	0.1	23.4	12.6		0.3	0.25	172	1.64	0.007	0.11	24.21	25	0.067	12.67	6.14	9.6	< 1	0.01

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
8162	5.51	0.1	0.17	67	0.79	0.03	0.14	23.3	16.6		0.26	0.32	540	3.36	0.009	0.08	23.64	43.8	0.089	18.85	6.05	14.9	3	< .01
8163	4.83	0.1	0.16	80	0.73	0.03	0.13	22	16.3		0.21	0.32	455	3.43	0.008	0.11	22.21	39.1	0.094	18.52	5.76	14.4	2	< .01
8164	4.44	0.1	0.18	60	0.7	0.03	0.13	20.7	14.6		0.22	0.31	444	3.27	0.008	0.1	20.62	37.6	0.088	17.33	5.44	13.4	5	0.01
8166	6	0.1	0.16	82	0.83	0.04	0.13	20.6	19.5		0.24	0.33	303	2.2	0.01	0.12	27.67	30	0.066	16.39	6.93	15.7	2	0.02
8167	4.74	0.1	0.15	61	0.66	0.03	0.17	23.9	11.1		0.2	0.28	80	2.46	0.017	0.12	22.21	20.8	0.075	19.28	5.67	15.2	5	0.1
8168	4.38	0.1	0.16	62	0.62	0.02	0.09	21.4	10.5		0.19	0.24	171	2.61	0.007	0.11	21.61	21.3	0.067	14.37	5.62	9.3	< 1	0.01
8169	4.87	0.1	0.15	71	0.69	0.03	0.12	23	12.5		0.23	0.32	416	2.64	0.008	0.11	21.98	29.4	0.079	17.86	5.82	11	< 1	0.01
8170	4.26	0.1	0.14	75	0.6	0.02	0.08	20.4	10.4		0.22	0.25	296	1.8	0.012	0.11	19.32	30.7	0.072	13.06	5.11	8.7	< 1	0.02
8171	7.05	0.1	0.17	89	1.07	0.03	0.15	23	22.7		0.36	0.38	954	8.04	0.104	0.16	29.49	67.5	0.092	21.17	7.55	15	8	0.09
8172	4.05	0.1	0.1	55	0.58	0.03	0.2	22.2	8.1		0.17	0.24	54	1.17	0.043	0.1	20.28	16.5	0.045	17.96	5.57	16.5	< 1	0.25
8173	4.68	0.1	0.15	92	0.67	0.04	0.16	21.8	13.9		0.2	0.3	212	3.69	0.019	0.14	21.66	29.2	0.072	17.54	5.71	14.9	3	0.13
8174	3.82	0.1	0.14	60	0.49	0.04	0.19	24.1	9.9		0.16	0.26	58	2.87	0.044	0.14	18.85	16.3	0.075	18.81	4.9	13.9	< 1	0.24
8175	4.87	0.1	0.19	68	0.67	0.04	0.1	21.8	13.2		0.23	0.31	210	3.66	0.01	0.14	21.48	23.9	0.072	19.08	5.48	11.6	4	0.01
8176	5.16	0.1	0.18	80	0.64	0.04	0.11	21.2	14.1		0.2	0.32	124	2.98	0.009	0.15	21.57	22.4	0.066	17.76	5.48	12.6	2	0.01
8177	4.36	0.1	0.18	67	0.59	0.04	0.1	20.3	13		0.18	0.33	123	2.57	0.008	0.14	20.98	21.6	0.063	16.44	5.29	12.6	3	0.01
8178	4.94	0.1	0.17	67	0.66	0.04	0.13	22.9	14.9		0.2	0.36	128	2.76	0.009	0.16	23.03	22.9	0.07	17.92	5.69	14.8	1	0.01
8180	5.71	0.1	0.14	73	0.77	0.04	0.14	24.4	17.5		0.28	0.4	371	3.24	0.01	0.11	24.9	27.9	0.072	15.93	6.21	13.5	< 1	< .01
8181	3.71	< .1	0.13	104	0.46	0.04	0.12	16.4	19		0.13	0.77	327	1.47	0.01	0.13	17.54	26.5	0.068	13.56	4.28	11.4	< 1	0.04
8182	3.55	0.1	0.11	96	0.48	0.04	0.12	15.9	17.7		0.14	0.75	279	1.34	0.015	0.15	16.28	25.4	0.07	13.13	4.21	11.5	5	0.04
8183	3.98	0.1	0.12	76	0.46	0.05	0.16	17.1	19.7		0.14	0.63	297	1.76	0.015	0.13	17.83	27.6	0.069	13.72	4.36	16.4	< 1	0.04
8184	3.81	0.1	0.13	88	0.48	0.05	0.15	17.2	18.3		0.14	0.68	298	1.93	0.014	0.13	18.03	28.1	0.074	14.41	4.62	16.1	1	0.04
8184	3.46	0.1	0.15	83	0.45	0.05	0.14	15.5	16.8		0.14	0.65	291	1.92	0.014	0.11	16.64	27.4	0.07	13.37	4.09	14.6	2	0.03
8185	3.46	< .1	0.11	84	0.45	0.05	0.12	14.8	16.4		0.13	0.73	234	1.22	0.007	0.16	16.39	22.9	0.066	11.52	3.87	10.8	< 1	0.03
8186	3.83	0.1	0.09	98	0.47	0.06	0.12	15.5	16.3		0.14	0.66	262	1.43	0.009	0.14	16.34	27.9	0.07	13.44	4.04	11.2	1	0.03
8187	3.67	0.1	0.09	89	0.46	0.06	0.13	17	22		0.13	0.47	241	1.84	0.006	0.18	17.18	25	0.061	13	4.32	12.4	3	0.02
8188	3.37	0.1	0.1	93	0.45	0.06	0.11	15.6	13.3		0.13	0.7	403	1.5	0.006	0.14	16.44	27.9	0.07	13.13	3.87	11.4	< 1	0.02
8189	4.16	0.1	0.13	87	0.52	0.07	0.11	17.9	16.9		0.17	0.56	425	2.11	0.008	0.12	18.7	34.8	0.071	14.82	4.68	11.4	1	0.02
8194	4.8	0.1	0.18	42	0.63	0.02	0.2	27.4	21.7		0.21	0.34	298	1.7	0.009	0.26	23.8	25.3	0.086	12.98	6.2	17	< 1	< .01
8195	8.58	0.1	0.14	68	1.2	0.06	0.24	43.9	10.2		0.37	0.25	74	2.97	0.036	0.16	36.77	22.7	0.116	21.65	9.73	13.8	< 1	0.28
8196	3.63	0.1	0.15	41	0.48	0.02	0.1	18.7	11.5		0.14	0.24	220	2.47	0.008	0.1	17.52	20	0.074	13.57	4.51	8.8	< 1	0.01
8197	4.53	0.1	0.16	65	0.6	0.04	0.15	23.3	14.9		0.18	0.34	127	2.68	0.018	0.07	20.89	21.1	0.116	19.03	5.48	13.9	3	0.06
8198	5.4	0.1	0.16	70	0.74	0.03	0.15	23.2	13.1		0.25	0.3	130	4.23	0.019	0.13	24.07	18.1	0.066	18.42	6.07	13.7	3	0.06
8199	6.42	0.1	0.17	71	0.84	0.02	0.12	27.6	11		0.35	0.24	363	1.44	0.01	0.19	28.55	22.7	0.094	14.77	7.08	10.1	< 1	0.03
8200	4.37	0.1	0.2	56	0.55	0.03	0.15	23.4	14.8		0.16	0.31	601	1.45	0.008	0.07	21.56	27.4	0.071	15.92	5.64	15.9	< 1	0.01
8201	4.36	0.1	0.19	58	0.6	0.03	0.12	22.5	15.4		0.19	0.37	337	2.57	0.009	0.11	21.04	32.9	0.07	15.94	5.3	11.5	< 1	0.03
8202	3.92	0.1	0.19	57	0.52	0.03	0.12	20.5	14		0.17	0.37	361	3.04	0.008	0.09	19.35	28.6	0.074	16.92	4.95	13.1	3	0.02
8203	4.18	0.1	0.13	45	0.54	0.02	0.09	20.4	12		0.18	0.28	157	2.04	0.007	0.13	19.58	20.1	0.057	12.77	5.09	10.6	< 1	0.01

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
8204	4.26	0.1	0.13	57	0.55	0.02	0.09	20.6	11.6		0.17	0.27	168	2.18	0.007	0.17	19.27	21.5	0.059	12.42	5.08	10.2	< 1	0.01
8205	4.4	< .1	0.13	54	0.58	0.03	0.09	21.3	11.7		0.18	0.28	172	2.12	0.007	0.09	20.37	21.4	0.064	13.18	5.25	10.5	< 1	0.01
8207	4.15	0.1	0.15	51	0.56	0.03	0.1	20.8	13.5		0.17	0.29	775	1.89	0.007	0.07	19.72	24.6	0.049	13.9	5.09	11.7	2	0.02
8208	4.83	0.1	0.16	65	0.64	0.03	0.12	22.9	13.3		0.21	0.33	213	2.31	0.007	0.12	22.28	24.5	0.062	15.32	5.71	11.9	< 1	0.01
8209	4.71	0.1	0.18	55	0.61	0.03	0.13	22.7	13.9		0.2	0.33	154	3.3	0.009	0.12	21.65	23	0.065	17.18	5.61	14.8	1	0.01
8210	4.79	0.1	0.16	48	0.58	0.02	0.11	22.3	11.7		0.2	0.29	127	3.14	0.008	0.1	21.65	20.1	0.06	15.11	5.58	12	2	< .01
8211	4.37	0.1	0.17	62	0.54	0.03	0.11	20.9	12.8		0.18	0.3	265	3.34	0.009	0.13	19.97	26.8	0.07	14.85	5.12	12.4	< 1	0.01
8212	4.57	0.1	0.16	60	0.6	0.03	0.1	21.6	10.8		0.21	0.27	255	2.85	0.008	0.1	20.75	24.4	0.09	17	5.31	11.4	< 1	0.01
8213	5.37	0.1	0.15	72	0.75	0.03	0.15	25.2	10.2		0.22	0.26	96	3.02	0.015	0.12	25.7	21.8	0.082	19.2	6.49	13.9	1	0.09
8214	4.24	0.1	0.13	64	0.54	0.02	0.09	21.4	11.9		0.17	0.27	214	1.87	0.006	0.13	19.75	23.4	0.061	12.42	5.09	10.5	< 1	0.02
8215	4.71	0.1	0.12	62	0.63	0.02	0.09	22.3	9.8		0.2	0.25	191	2.08	0.006	0.14	22.57	20.2	0.067	13.57	5.74	9.9	1	0.02
8216	4.23	0.1	0.24	213	0.52	0.04	0.12	17.6	18.8		0.15	0.55	366	1.14	0.016	0.04	17.72	45.2	0.044	13.86	4.31	14.3	1	< .01
8217	3.83	0.1	0.24	65	0.46	0.04	0.11	17.1	20.4		0.13	0.57	203	1.01	0.013	0.1	16.16	56.6	0.073	10.7	4.06	11.9	2	0.01
8218	3.71	0.1	0.25	58	0.45	0.04	0.11	17.1	20.2		0.14	0.57	175	0.84	0.013	0.11	16.19	53.6	0.072	11.01	4.09	11.4	< 1	0.01
8219	3.49	0.1	0.24	68	0.44	0.04	0.1	16.6	21.4		0.12	0.57	174	0.86	0.013	0.09	16.18	53.4	0.07	10.54	3.9	11.2	< 1	< .01
8221	3.18	< .1	0.16	73	0.43	0.03	0.13	16.3	16.3		0.14	0.52	397	0.56	0.008	0.34	15.29	41.1	0.059	11.19	3.88	12.8	< 1	< .01
8222	3.64	< .1	0.12	131	0.47	0.03	0.12	17.9	9.8		0.13	0.4	1796	0.68	0.008	0.11	16.65	41.7	0.05	18.07	4.25	11.4	1	0.01
8223	3.5	0.1	0.24	140	0.42	0.03	0.12	17.5	8.3		0.11	0.5	127	0.55	0.018	0.17	16.17	21.3	0.013	12.88	4.16	14.5	3	0.01
8224	3.88	< .1	0.16	62	0.54	0.03	0.12	17.1	16.9		0.18	0.54	1320	1.02	0.01	0.2	16.67	50	0.067	11.66	4.14	11.9	2	< .01
8225	3.52	0.1	0.22	119	0.44	0.03	0.14	15.8	18.8		0.12	0.59	295	0.51	0.018	0.17	15.33	35.4	0.037	11.29	3.86	13.1	5	0.01
8226	4.56	0.1	0.25	125	0.61	0.03	0.12	19.3	11		0.2	0.5	107	0.57	0.023	0.14	19.3	25.6	0.013	12.75	4.73	13.1	< 1	0.04
8227	3.79	0.1	0.16	93	0.48	0.03	0.11	18.4	16.4		0.16	0.52	916	0.73	0.012	0.09	16.86	35.9	0.052	10.47	4.41	11.2	< 1	< .01
8228	3.47	0.1	0.18	72	0.45	0.03	0.12	17	16.1		0.13	0.54	293	0.41	0.014	0.11	15.37	32.2	0.048	12.23	3.92	12.9	2	0.02
8229	2.85	< .1	0.17	52	0.34	0.04	0.23	14	19.8		0.1	0.54	835	0.58	0.008	0.31	12.87	41.9	0.09	9.71	3.27	11.2	< 1	0.01
8230	3.38	0.1	0.19	80	0.43	0.03	0.12	15.8	19.2		0.13	0.62	203	0.48	0.014	0.19	14.95	32.1	0.056	10.75	3.79	12.2	2	< .01
8231	2.93	0.1	0.14	141	0.36	0.03	0.08	14.8	10		0.12	0.43	371	0.58	0.013	0.13	12.49	30.6	0.04	15.56	3.4	9.6	< 1	0.01
8232	3.15	0.1	0.16	117	0.42	0.02	0.08	15.9	12.4		0.13	0.49	430	0.57	0.015	0.2	14.04	36.1	0.05	15.47	3.65	10.4	2	0.02
8232	2.81	< .1	0.16	96	0.38	0.03	0.08	14.7	11.5		0.12	0.46	409	0.54	0.014	0.19	12.93	34.4	0.047	14.7	3.3	9.5	< 1	0.01
8300	4.36	< .1	0.16	48	0.55	0.03	0.15	19.7	21.6		0.16	0.38	174	0.8	0.043	0.27	18.96	26	0.059	11.2	4.82	14.5	< 1	0.02
8301	1.44	< .1	0.04	8	0.13	0.02	0.13	10.3	15.5		0.03	0.19	129	0.32	0.004	0.24	8.21	7.5	0.07	6.31	2.25	15.1	2	0.01
8302	2.38	< .1	0.12	42	0.23	0.03	0.1	17.9	16.2		0.06	0.36	164	1.71	0.006	0.35	11.98	36	0.021	13.13	3.49	13.6	1	< .01
8304	4.38	0.1	0.11	38	0.51	0.03	0.12	21.5	22.8		0.14	0.37	181	0.95	0.006	0.25	20.75	22.9	0.039	13.13	5.35	11.9	< 1	0.01
3300-1		0.1	0.01	2.5			7.39	0.5	20.4			1.01	4616	0.44	0.005	0.05		4	1.784	2.49		23.2	24	0.7
3300-2		0.05	0.01	2.5			7.62	0.25	13.5			1.07	1502	0.42	0.004	0.06		5	1.474	1.94		31.6	12	0.57
3300-3		0.05	0.01	2.5			5.63	0.25	11			1.06	2664	0.35	0.004	0.05		0.05	1.702	1.23		15.8	11	0.42
3300-4		0.05	0.01	2.5			6.55	0.25	15.1			0.67	662	0.29	0.008	0.04		0.05	1.6	1.51		28.9	5	0.54
3300-5		0.05	0.01	2.5			10.41	0.25	38			1.13	4207	0.36	0.004	0.06		2.1	2.425	1.19		28.9	108	0.75

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
3301-1		0.05	0.01	2.5			7.71	0.25	16.4			0.85	3797	0.27	0.003	0.05		2.1	1.828	0.89		39	9	0.7
3301-2		0.05	0.01	2.5			8.99	0.25	5.3			0.81	2752	0.24	0.002	0.04		7.6	2.035	1		38	6	0.59
3301-3		0.05	0.01	2.5			8.51	0.25	21.2			1.23	2373	0.32	0.003	0.05		4	1.913	1.02		48.6	2	0.65
3301-4		0.05	0.01	2.5			19	0.25	25.8			0.98	884	0.44	0.003	0.03		1.7	3.093	1.37		39.7	5	0.7
3301-5		0.05	0.01	2.5			15	0.25	25.1			1.41	1140	0.43	0.002	0.03		0.05	3.435	0.76		52.5	9	0.6
3302-1		0.05	0.01	2.5			7.04	0.25	2			2.17	448	0.26	0.002	0.05		40.3	2.054	0.4		104	1	0.32
3302-2		0.1	0.01	2.5			16	0.25	2.1			3.17	906	0.54	0.002	0.06		231.6	4.795	0.55		224.6	0.5	0.8
3302-3		0.1	0.01	2.5			12.6	0.25	1.7			2.15	2657	0.52	0.004	0.04		33.1	3.111	0.62		269.6	0.5	0.54
3302-4		0.1	0.01	2.5			12.25	0.25	3.2			2.34	331	0.27	0.001	0.04		75.9	3.51	0.48		65.5	0.5	0.49
3302-5		0.05	0.01	2.5			10.78	0.25	2.5			3.25	1152	0.46	0.001	0.03		94.9	3.509	0.57		199.9	3	0.43
3302-6		0.05	0.01	2.5			10.49	0.25	2.2			3.2	1142	0.46	0.001	0.03		97.2	3.406	0.55		199	0.5	0.43
3303-1		0.05	0.01	2.5			10.28	0.25	2.4			0.69	3574	0.42	0.004	0.06		5.8	2.303	1.71		105	2	0.34
3303-2		0.05	0.01	2.5			6.49	0.25	2.8			1.04	4926	0.36	0.002	0.04		7.4	1.329	0.9		52.5	0.5	0.35
3303-3		0.05	0.01	2.5			8.62	0.25	3.9			1.47	5234	0.44	0.004	0.05		13.6	2.528	1.75		78.2	2	0.66
3303-4		0.05	0.01	2.5			8.11	0.6	0.9			1.16	8711	0.68	0.007	0.08		13	2.637	2.39		29.4	3	0.7
3303-5		0.05	0.01	2.5			4.48	0.25	4.7			0.86	6451	0.35	0.002	0.04		7.8	1.098	1.03		52.4	2	0.52
3304-1		0.05	0.02	2.5			13.48	1	7.7			1.17	4273	0.44	0.004	0.08		5.3	2.986	1.52		86.3	15	0.71
3304-2		0.05	0.01	2.5			5.02	2	10.4			1.06	4478	0.38	0.005	0.05		3.2	1.288	2.39		41.1	9	0.36
3304-3		0.05	0.02	2.5			6.89	1	7.1			1.44	6399	0.45	0.003	0.04		3.3	1.978	1.54		78.4	4	0.66
3304-4		0.05	0.03	2.5			10.74	1.4	5.4			1.01	3953	0.51	0.005	0.07		6.2	2.639	2.02		93.8	1	0.57
3304-5		0.05	0.02	2.5			8.46	1.4	3.9			1.11	8089	0.6	0.005	0.05		4.5	2.089	1.83		117	5	0.48
3304-6		0.1	0.08	40			14.93	3	4.4			2.03	24191	1.32	0.081	0.44		46.8	2.954	57.76		174.5	4	1.29
3305-1		0.05	0.02	2.5			8.49	0.5	5.4			1.81	4121	0.58	0.003	0.04		26	2.018	1.82		59.3	7	0.44
3305-2		0.05	0.01	2.5			8.69	0.25	7.6			1.32	4332	0.47	0.002	0.05		24.6	2.21	0.98		31.9	8	0.54
3305-3		0.05	0.01	2.5			12.53	0.25	2.6			0.94	5751	0.44	0.004	0.04		16.9	2.463	0.75		83.8	3	0.6
3305-4		0.05	0.01	2.5			13.81	0.25	2.6			1.62	4087	0.59	0.002	0.05		38.2	3.359	1.27		88.9	3	1.06
3305-5		0.05	0.01	2.5			11.16	0.25	3			1.31	7580	0.47	0.002	0.05		22.6	2.53	1.34		50.5	10	0.64
3306-1		0.05	0.01	2.5			8.22	0.25	5.3			0.97	1159	0.36	0.002	0.03		13.4	1.554	1.03		33.9	5	0.46
3306-2		0.05	0.01	2.5			7.69	0.25	3.6			0.89	4567	0.27	0.002	0.05		9.3	1.514	1.11		33	0.5	0.37
3306-3		0.1	0.01	2.5			8.25	0.25	1.9			1.07	6415	0.23	0.001	0.03		21.6	1.343	1.06		34.6	0.5	0.29
3306-4		0.1	0.01	2.5			11.95	0.25	4			1.13	1879	0.35	0.002	0.05		22	2.058	1.12		58.7	2	0.61
3306-5		0.1	0.01	2.5			11.74	0.25	2.7			1.26	9104	0.46	0.003	0.03		10.2	2.211	1.46		74.6	3	0.94
3307-1		0.1	0.01	2.5			9.63	0.25	2.3			1.19	3345	0.19	0.003	0.02		0.6	1.392	0.98		62.8	7	0.34
3307-2		0.1	0.01	2.5			10.28	0.25	13.2			1.11	2404	0.51	0.004	0.03		0.4	1.981	3.07		143.3	20	1.14
3307-3		0.1	0.01	2.5			7.62	0.25	1.4			1.38	5469	0.17	0.002	0.03		0.05	1.898	1.35		102	2	0.53
3307-4		0.1	0.01	2.5			10.55	0.25	2			1.48	5161	0.22	0.002	0.02		2.2	1.204	0.92		130.6	2	0.55
3307-5		0.05	0.01	2.5			9.34	0.25	2.1			1.19	3366	0.14	0.003	0.02		0.8	1.38	1.3		60	8	0.37

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
3308-1		0.05	0.01	2.5			6.88	0.25	3			0.63	2660	0.16	0.001	0.02		4	1.013	1.08		19.9	4	0.29
3308-2		0.1	0.01	2.5			11.21	0.25	5.7			1.43	2059	0.42	0.007	0.05		5.5	3.074	2.67		53.1	10	0.5
3308-3		0.1	0.01	2.5			14.3	0.25	3.5			1.23	1649	0.36	0.005	0.04		7	2.757	1.47		37	6	0.45
3308-4		0.1	0.01	2.5			16.6	0.25	1.8			3.74	14746	0.58	0.008	0.05		51.4	3.92	5.95		446.7	2	1.01
Till2	4.66	0.1	0.08	77	0.47	0.09	0.3	30.2	39.3		0.13	0.7	640	12.58	0.022	2.47	26.04	31	0.056	25.74	7.22	35.7	< 1	0.01
Till3	2.19	0.1	0.04	109	0.23	0.02	0.07	13.6	16.6		0.05	0.56	308	0.6	0.015	0.77	11.98	28.5	0.042	17.84	3.24	6.8	< 1	0.03
Till2	4.2	0.1	0.07	65	0.42	0.06	0.31	29.6	38.5		0.11	0.69	642	12.33	0.022	2.37	26.21	31.9	0.054	23.7	6.92	34.5	3	0.04
Till2	4.81	0.1	0.07	76	0.46	0.08	0.3	29.8	37.8		0.11	0.69	636	12.31	0.021	2.48	25.33	31.8	0.055	23.68	6.94	34.7	1	0.02
Till2	4.41	0.1	0.07	71	0.45	0.11	0.3	28.2	35.5		0.13	0.68	623	12.42	0.019	2.34	24.33	29.5	0.054	24.67	6.84	32.7	< 1	0.05
Till2	4.64	0.1	0.09	75	0.48	0.07	0.35	33.4	38.9		0.12	0.73	661	13.28	0.024	2.57	24.2	34	0.055	24.51	7.15	33.2	1	0.02
Till2	4.13	0.1	0.11	57	0.4	0.06	0.28	24.8	38.1		0.11	0.69	642	12.27	0.02	2.41	21.71	31.3	0.05	23.93	6.22	32.1	< 1	0.02
Till2	4.26	0.1	0.08	70	0.39	0.05	0.3	27.9	40.5		0.11	0.68	632	12.78	0.019	2.35	23.08	32.2	0.055	25.39	6.29	31	< 1	0.04
Till2	4.43	0.1	0.08	60	0.45	0.06	0.31	29.3	39.3		0.12	0.7	645	12.77	0.019	2.26	23.27	33.1	0.056	24.93	6.86	33.1	< 1	0.03
Till2	4.07	0.1	0.09	64	0.42	0.06	0.32	28.2	40		0.12	0.69	633	12.49	0.02	2.27	22.39	31.1	0.056	25.29	6.51	32.6	< 1	0.03
Till2	4.44	0.1	0.08	72	0.43	0.06	0.32	30.5	40.1		0.12	0.7	643	12.87	0.021	2.33	23.64	32.7	0.056	24.54	6.77	33.4	< 1	0.02
Till2	4.24	0.1	0.14	73	0.41	0.07	0.3	29.3	38.7		0.11	0.66	626	12.42	0.02	2.22	23.73	32.1	0.054	25.01	6.77	32.7	< 1	0.06
Till2	4.23	0.1	0.09	69	0.42	0.06	0.31	26.4	38.2		0.11	0.67	623	12.25	0.019	2.34	24.33	30.1	0.049	24.17	6.65	33.6	1	0.02
Till3	1.91	0.1	0.04	112	0.22	0.02	0.08	13.4	17.6		0.07	0.57	315	0.61	0.019	0.72	11.94	30.5	0.045	17.38	3.36	7.3	< 1	0.01
NAT98-282	3.98	0.1	0.17	70	0.45	0.06	0.15	16.6	16.3		0.13	0.78	460	1.46	0.009	0.11	17.14	27.8	0.066	14.37	4.47	14.1	< 1	0.02
Till3	1.99	0.1	0.03	137	0.21	0.02	0.08	14	18.4		0.07	0.58	316	0.59	0.019	0.77	12.19	30.8	0.044	18.05	3.38	7.6	< 1	0.02
Till3	2.26	0.1	0.04	109	0.24	< .02	0.08	15	19.2		0.06	0.58	326	0.6	0.017	0.79	12.85	32.2	0.042	19.24	3.45	7.3	< 1	0.03
Till3	2.16	0.1	0.06	119	0.24	0.02	0.1	16.2	18.6		0.08	0.6	335	0.65	0.021	0.92	12.27	32.6	0.045	19.08	3.47	8.1	< 1	0.02
Till3	2.21	0.1	0.06	90	0.2	0.02	0.08	13.8	17.3		0.06	0.57	318	0.61	0.019	0.81	12.25	30.6	0.042	17.59	3.45	7.2	< 1	0.02
Till3	2.09	0.1	0.04	98	0.22	< .02	0.08	15	19.8		0.07	0.58	326	0.62	0.02	0.75	12.35	32.2	0.045	19.61	3.41	7.4	< 1	0.01
Till3	1.93	0.1	0.04	103	0.21	< .02	0.07	14	18		0.06	0.57	321	0.59	0.018	0.72	11.19	31.5	0.045	18.14	3.2	6.9	< 1	0.02
Till3	2.11	0.1	0.05	111	0.21	0.02	0.08	15	18.9		0.07	0.59	331	0.62	0.018	0.71	11.71	31.7	0.045	19.98	3.28	7.1	1	0.01
Till3	2.1	0.1	0.05	116	0.23	0.02	0.09	15	19.1		0.06	0.59	326	0.56	0.018	0.9	12.17	31.4	0.044	18.56	3.41	7.6	< 1	0.01
Till3	2.09	0.1	0.05	113	0.24	0.02	0.09	14.2	18.1		0.08	0.59	324	0.58	0.021	0.89	13.71	31.9	0.046	17.65	3.55	8.6	1	< .01
NAT98-282	3.99	0.1	0.2	76	0.48	0.04	0.16	17.9	16		0.14	0.83	490	1.62	0.007	0.12	18.01	28.2	0.07	14.97	4.61	14.2	2	0.03
NAT98-282	3.53	0.1	0.17	50	0.43	0.03	0.14	16.3	15.4		0.11	0.8	465	1.44	0.008	0.13	16.37	29.8	0.064	13.25	4.01	12.6	2	0.04
NAT98-282	3.53	< .1	0.19	62	0.45	0.03	0.15	17.9	18.1		0.14	0.8	469	1.58	0.01	0.11	16.85	30.3	0.064	15	4.54	13.9	< 1	0.02
NAT98-282	3.71	0.1	0.21	45	0.43	0.02	0.13	16.6	15.6		0.11	0.76	458	1.55	0.009	0.14	16.94	28	0.063	13.8	4.45	13.4	2	0.04
NAT98-282	3.76	0.1	0.19	54	0.44	0.02	0.12	16.5	16		0.14	0.78	466	1.62	0.009	0.12	15.89	28.7	0.067	14.77	4.16	12.5	3	0.03

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Gd_1F_ppm	Ge_1F_ppm	Hf_1F_ppm	Hg_1F_ppb	Ho_1F_ppm	In_1F_ppm	K_1F_%	La_1F_ppm	Li_1F_ppm	LOI_1F	Lu_1F_ppm	Mg_1F_%	Mn_1F_ppm	Mo_1F_ppm	Na_1F_%	Nb_1F_ppm	Nd_1F_ppm	Ni_1F_ppm	P_1F_%	Pb_1F_ppm	Pr_1F_ppm	Rb_1F_ppm	Re_1F_ppb	S_1F_%
NAT98-282	3.26	< .1	0.16	61	0.44	0.02	0.16	17	17.3		0.13	0.79	459	1.47	0.009	0.17	15.66	29.5	0.063	14.51	4.29	13	1	0.05
NAT98-282	3.34	0.1	0.22	53	0.42	0.02	0.12	15.9	15.3		0.13	0.77	460	1.43	0.008	0.11	15.19	26.2	0.064	14.35	3.99	12.4	< 1	0.03
NAT98-282	3.71	< .1	0.21	49	0.44	0.03	0.14	17.7	19.8		0.13	0.74	468	1.53	0.007	0.22	17.32	30.7	0.069	14.89	4.42	13.9	2	0.03
NAT98-282	3.65	0.1	0.2	65	0.45	0.03	0.2	18.2	17.1		0.13	0.85	492	1.49	0.009	0.13	18.26	30.1	0.068	15.12	4.62	16.8	3	< .01
NAT98-282	3.67	0.1	0.15	69	0.46	0.06	0.15	17.3	17.7		0.14	0.81	477	1.6	0.008	0.11	18.2	29.3	0.068	14.63	4.35	14.7	3	0.01
NAT98-282	3.89	0.1	0.17	56	0.47	0.06	0.16	18	17.1		0.13	0.81	473	1.53	0.008	0.1	17.59	28.1	0.069	14.53	4.61	14.8	2	0.02

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
1001	0.05	0.1	0.1		0.1	702.6			0.09	0.05	0.0005	0.01		0.05	1	0.1	0.14		2110.8	0.1		6	4.1
1002	0.17	0.1	0.1		0.05	611.7			0.1	0.05	0.0005	0.01		0.05	1	0.1	0.23		2448.5	0.1		5.8	6.2
1003	0.1	0.1	0.2		0.2	642.6			0.09	0.05	0.0005	0.01		0.05	1	0.1	0.28		2752	0.1		5.8	7.7
1004	0.16	0.1	0.3		0.05	649.1			0.09	0.05	0.0005	0.01		0.05	1	0.1	0.25		2641.3	0.1		5.9	8
1005	0.04	0.05	0.2		0.05	560.8			0.08	0.05	0.0005	0.01		0.05	1	0.1	0.16		2467.7	0.05		6.1	5.8
1006	0.07	0.1	0.2		0.2	542.2			0.05	0.05	0.0005	0.01		0.05	1	0.1	0.16		2998.8	0.05		6.1	6.8
1007	0.12	0.1	0.2		0.1	569.1			0.07	0.05	0.0005	0.01		0.05	1	0.1	0.16		2598.1	0.1		6.6	8.7
1008	0.38	0.05	0.3		0.05	544.7			0.08	0.05	0.0005	0.01		0.05	1	0.1	0.16		1946.5	0.1		5.9	6
1009	1.69	0.1	0.3		0.05	576.9			0.09	0.05	0.0005	0.01		0.05	1	0.1	0.24		2190.7	0.1		6	6.8
1010	2.56	0.1	0.4		0.1	535.4			0.06	0.05	0.0005	0.01		0.05	1	0.1	0.23		2663.6	0.1		6.2	9.3
1011	0.19	0.1	0.2		0.1	652.5			0.08	0.05	0.0005	0.01		0.05	1	0.1	0.15		2484.4	0.1		5.4	6.3
1013	0.85	0.1	0.3		0.1	853.6			0.14	0.1	0.0005	0.01		0.05	1	0.1	0.18		3029.7	0.2		5.8	8.1
1014	0.21	0.1	0.3		0.05	756.8			0.12	0.05	0.0005	0.01		0.05	1	0.1	0.19		2730.1	0.1		5.6	6.4
1015	0.08	0.1	0.2		0.05	535.5			0.08	0.05	0.0005	0.02		0.05	1	0.1	0.08		3200.3	0.1		6.9	8.7
1016	0.08	0.1	0.3		0.1	573.2			0.1	0.05	0.0005	0.01		0.05	1	0.1	0.09		2921.5	0.1		7	8.5
1017	1.8	0.1	0.3		0.05	558.8			0.1	0.05	0.0005	0.01		0.05	1	0.1	0.12		2266	0.1		6.2	7.8
1018	1.14	0.1	0.3		0.05	788.1			0.1	0.05	0.0005	0.02		0.05	1	0.1	0.15		2444.7	0.1		5.7	5.7
1019	0.44	0.1	0.1		0.05	675.2			0.11	0.05	0.0005	0.01		0.05	1	0.1	0.07		2590.4	0.05		6	7.6
1020	0.62	0.1	0.1		0.05	683			0.15	0.05	0.0005	0.01		0.05	1	0.1	0.17		2252.1	0.05		6.1	7.1
1181	1.77	0.1	0.05		0.1	965.5			0.15	0.05	0.0005	0.03		0.05	1	0.1	0.06		2564.7	0.1		6.3	9
1182	0.21	0.1	0.05		0.1	1067.4			0.17	0.05	0.0005	0.01		0.05	1	0.1	0.19		3137	0.1		6.4	7
1183	0.49	0.1	0.2		0.1	873.2			0.15	0.05	0.0005	0.01		0.05	1	0.1	0.06		2693.6	0.1		9.7	52.3
1184	1.85	0.1	0.1		0.2	786.9			0.15	0.05	0.0005	0.01		0.05	1	0.1	0.06		3161	0.1		9.2	46.3
1185	1.93	0.1	0.1		0.4	852.1			0.15	0.05	0.0005	0.01		0.05	1	0.2	0.07		2773.8	0.1		9	25.6
1186	1.63	0.1	0.05		0.6	700.4			0.13	0.05	0.0005	0.01		0.05	1	0.4	0.15		2857.9	0.1		6.5	9.5
1187	0.88	0.1	0.1		0.2	1142.2			0.21	0.1	0.0005	0.01		0.05	1	0.1	0.17		2900.1	0.1		6.9	8.2
1188	0.97	0.1	0.1		0.05	696.4			0.15	0.05	0.0005	0.01		0.05	1	0.1	0.1		2964.6	0.1		6.7	9.6
1189	2.6	0.1	0.1		0.2	837.3			0.18	0.05	0.0005	0.02		0.05	1	0.1	0.08		3551.6	0.1		7.4	9.5
2001	0.13	0.2	0.1		0.2	553			0.1	0.1	0.0005	0.01		0.05	1	0.1	0.53		1689.6	0.05		6	4.1
2002	0.08	0.2	0.3		0.2	454.6			0.02	0.1	0.002	0.01		0.05	1	0.1	0.47		1958.7	0.05		5.8	6.2
2003	0.13	0.2	0.5		0.1	551.8			0.03	0.1	0.0005	0.02		0.05	1	0.1	0.38		1529.3	0.05		5.8	7.7
2004	0.34	0.1	0.9		0.1	574.4			0.04	0.1	0.0005	0.03		0.05	1	0.1	0.56		1513.7	0.1		5.9	8
2005	0.29	0.1	1		0.2	696.1			0.05	0.1	0.001	0.04		0.05	1	0.1	0.74		1816.4	0.1		6.1	5.8
2006	0.28	0.1	0.9		0.1	544.3			0.05	0.1	0.001	0.02		0.05	1	0.1	0.57		2208.1	0.1		6.1	6.8
2007	0.43	0.1	0.7		0.1	525			0.03	0.1	0.0005	0.01		0.05	1	0.1	0.41		1851.2	0.1		6.6	8.7
2008	0.16	0.1	0.9		0.05	495.4			0.04	0.05	0.0005	0.01		0.05	1	0.1	0.53		2144.1	0.1		5.9	6

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
2009	0.23	0.1	2		0.05	545.6			0.05	0.05	0.001	0.01		0.05	1	0.1	0.5		2153.2	0.1		6	6.8
2010	1.49	0.1	2.3		0.3	440.8			0.02	0.05	0.001	0.01		0.05	1	0.1	0.43		1710.9	0.1		6.2	9.3
2011	0.33	0.1	1.4		0.1	572.3			0.05	0.05	0.001	0.01		0.05	1	0.1	0.4		1949.3	0.1		5.4	6.3
2013	0.3	0.2	1.3		0.2	752.8			0.06	0.1	0.001	0.02		0.05	2	0.1	0.27		2718	0.05		5.8	8.1
2014	0.49	0.1	1.7		0.1	651.3			0.06	0.05	0.001	0.01		0.05	1	0.1	0.61		1615.3	0.1		5.6	6.4
2015	0.32	0.1	1.8		0.2	443.8			0.04	0.05	0.001	0.01		0.05	1	0.1	0.28		2226.3	0.2		6.9	8.7
2016	0.39	0.1	1.6		0.2	453.8			0.04	0.05	0.0005	0.01		0.05	1	0.1	0.24		2259.9	0.1		7	8.5
2017	0.66	0.1	1.1		0.2	478.5			0.05	0.05	0.001	0.01		0.05	1	0.1	0.3		1839.4	0.1		6.2	7.8
2018	0.24	0.1	1.9		0.3	682.2			0.07	0.05	0.0005	0.02		0.05	1	0.1	0.33		2230.1	0.2		5.7	5.7
2019	0.18	0.1	1.2		0.2	619.3			0.04	0.05	0.0005	0.01		0.05	1	0.1	0.52		2102.2	0.1		6	7.6
2020	0.15	0.1	1.2		0.2	648.1			0.07	0.05	0.0005	0.02		0.05	1	0.1	0.6		1899.5	0.1		6.1	7.1
2181	0.27	0.1	2.1		0.7	1008.3			0.1	0.05	0.0005	0.02		0.05	1	0.1	0.15		1816.2	0.1		6.3	9
2182	0.57	0.2	1.5		0.7	977.2			0.09	0.1	0.001	0.02		0.05	1	0.1	0.57		2253.8	0.1		6.4	7
2183	0.31	0.2	1.9		0.3	856.2			0.08	0.1	0.002	0.03		0.1	1	0.1	0.19		1335.6	0.2		9.7	52.3
2184	0.19	0.1	1.6		0.2	775			0.07	0.1	0.001	0.04		0.05	1	0.1	0.21		1279.8	0.2		9.2	46.3
2185	0.4	0.1	0.8		0.1	722.6			0.08	0.1	0.002	0.01		0.05	1	0.1	0.27		1888.4	0.2		9	25.6
2186	0.95	0.1	0.6		0.2	712.1			0.07	0.05	0.002	0.01		0.05	1	0.2	0.31		2043.9	0.2		6.5	9.5
2187	0.19	0.1	0.9		0.4	776.6			0.09	0.05	0.002	0.01		0.05	1	0.1	0.49		2254.5	0.2		6.9	8.2
2188	0.29	0.1	1.1		0.5	664.8			0.07	0.05	0.002	0.01		0.05	1	0.1	0.47		1995.9	0.2		6.7	9.6
2189	1.5	0.1	1.5		0.5	669.2			0.09	0.05	0.002	0.01		0.05	1	0.1	0.29		1900.8	0.2		7.4	9.5
3045	0.27	0.4	0.1		0.3	1954.7			0.17	0.1	0.001	0.01		0.05	1	0.1	0.16		1499.6	0.2		7.7	
3046	0.2	0.5	0.2		0.1	714.2			0.06	0.05	0.001	0.04		0.05	1	0.1	0.08		2468.6	0.1		7.9	
3047	0.08	0.5	0.4		0.2	795.3			0.03	0.05	0.001	0.04		0.05	1	0.1	0.11		2217.4	0.1		8.2	
3049	0.12	0.6	0.4		0.4	799.9			0.06	0.1	0.0005	0.02		0.05	1	0.1	0.13		2346.6	0.2		7.5	
3050	0.43	0.5	0.3		1.2	621.1			0.02	0.1	0.001	0.01		0.05	1	0.1	0.3		1979.4	0.1		8.1	
3051	0.34	0.5	0.2		1	247.4			0.01	0.1	0.0005	0.04		0.05	3	0.1	0.3		1654.6	0.1		5.5	
3052	0.65	0.4	0.4		0.7	255.3			0.01	0.1	0.0005	0.02		0.05	2	0.1	0.24		1680.8	0.2		5.4	
3053	0.21	0.6	0.2		0.2	350.3			0.01	0.1	0.001	0.07		0.05	2	0.1	0.18		1517.5	0.3		8.1	
3054	0.09	0.4	0.2		0.2	1179.1			0.06	0.05	0.0005	0.01		0.05	1	0.1	0.13		1076	0.2		8	
3055	0.13	0.4	0.4		0.2	1078.7			0.03	0.1	0.0005	0.03		0.1	1	0.1	0.25		1518.9	0.3		6.7	
3056	0.29	0.4	0.2		0.2	836.5			0.02	0.05	0.0005	0.01		0.1	1	0.1	0.18		1504.2	0.2		5.5	
3057	0.32	0.4	0.3		0.8	452.4			0.02	0.1	0.0005	0.02		0.05	2	0.1	0.31		1410.2	0.1		6	
3058	0.36	0.4	0.2		0.8	659.9			0.02	0.05	0.0005	0.01		0.05	1	0.1	0.18		2090.5	0.2		5.9	
3059	0.25	0.3	0.3		0.6	1381.6			0.08	0.05	0.0005	0.01		0.05	1	0.1	0.14		1565.5	0.2		6	
3061	0.4	0.4	0.3		1.4	913.8			0.02	0.1	0.002	0.01		0.1	1	0.1	0.24		1702.5	0.4		5.6	
3062	0.11	0.4	0.3		0.4	1102.2			0.04	0.05	0.0005	0.01		0.05	1	0.1	0.17		1702.1	0.2		7.5	

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
3063	0.13	0.5	0.2		0.05	1075.8			0.06	0.05	0.0005	0.02		0.5	0.5	0.1	0.12		902	0.2		8.2	
3064	0.05	0.4	0.3		0.2	1113.3			0.07	0.05	0.0005	0.02		0.3	0.5	0.1	0.12		958.7	0.2		8.3	
3065	0.05	0.3	0.1		0.2	1069.2			0.06	0.05	0.0005	0.01		0.05	1	0.1	0.18		1235.4	0.2		6.4	
3066	0.62	0.3	0.2		0.2	520.7			0.03	0.05	0.002	0.01		0.05	1	0.1	0.12		1869.5	0.1		5.7	
3067	0.26	0.4	0.2		0.1	1095.8			0.07	0.1	0.0005	0.01		0.05	1	0.1	0.2		868.6	0.2		5.7	
3068	0.15	0.4	0.2		0.1	590.8			0.02	0.05	0.0005	0.01		0.05	1	0.1	0.18		1064.7	0.2		5.7	
3142	0.08	0.5	0.1		0.2	560.3			0.02	0.4	0.002	0.01		0.05	3	0.1	0.8		564.5	0.1		5.1	7.8
3143	0.26	0.4	0.1		0.1	505.9			0.02	0.05	0.0005	0.01		0.05	2	0.1	0.29		548.2	0.2		4.7	8.8
3144	0.47	0.4	0.1		0.3	1396.6			0.06	0.05	0.0005	0.01		0.05	1	0.1	0.15		636.5	0.2		7.8	77.8
3145	0.17	0.3	0.2		0.1	1361.3			0.06	0.05	0.0005	0.01		0.05	1	0.1	0.11		1086	0.2		7.9	25.5
3146	0.56	0.4	0.2		0.1	654.7			0.01	0.05	0.0005	0.01		0.05	1	0.1	0.23		333.9	0.2		4.8	5.9
3147	0.22	0.3	0.1		0.05	703.7			0.03	0.05	0.0005	0.01		0.05	0.5	0.1	0.21		724.5	0.2		4.8	6.7
3148	0.34	0.4	0.2		0.1	609.7			0.04	0.1	0.0005	0.01		0.05	1	0.1	0.24		254.5	0.2		4.6	8
3149	0.24	0.3	0.2		0.1	586.7			0.02	0.05	0.0005	0.01		0.05	1	0.1	0.21		264.4	0.2		4.6	7.5
3152	0.75	0.5	0.1		0.2	477.6			0.03	0.05	0.0005	0.07		0.05	2	0.1	0.29		906.6	0.1		4.6	4.7
3153	0.21	0.4	0.2		0.1	637.7			0.06	0.05	0.0005	0.08		0.05	1	0.1	0.13		1830.8	0.1		5.5	5.9
3154	0.7	0.5	0.2		0.5	552.4			0.05	0.1	0.002	0.12		0.05	2	0.1	0.35		1089	0.1		5	4.3
3155	0.44	0.5	0.3		0.3	740.1			0.08	0.1	0.001	0.04		0.05	2	0.1	0.21		2302.9	0.1		5.9	13.3
3156	3.41	0.5	0.2		0.6	509.3			0.04	0.1	0.002	0.03		0.05	2	0.1	0.26		2143.7	0.1		4.9	7.4
3157	1.55	0.5	0.1		0.1	532.7			0.04	0.1	0.001	0.04		0.05	1	0.1	0.27		1980.7	0.1		5.1	8
3158	0.77	0.5	0.1		0.05	566			0.04	0.1	0.003	0.05		0.05	1	0.1	0.2		2280.3	0.1		5.1	7.2
3159	1.71	0.5	0.2		0.1	555.5			0.05	0.05	0.0005	0.02		0.05	1	0.1	0.25		2073.4	0.1		4.8	6.8
3160	0.8	0.4	0.3		0.2	369.6			0.02	0.1	0.002	0.01		0.05	2	0.1	0.32		2226.3	0.1		4.8	4.3
3161	0.66	0.4	0.4		0.4	342.8			0.04	0.1	0.003	0.01		0.05	3	0.1	0.35		1747.8	0.1		4.8	4.8
3162	1.64	0.5	0.2		0.1	309.8			0.02	0.1	0.002	0.04		0.05	1	0.1	0.2		1795	0.1		5	4.7
3163	0.1	0.4	0.2		0.1	297.3			0.02	0.1	0.002	0.03		0.05	1	0.1	0.2		1818.8	0.1		4.9	5.1
3166	0.47	0.4	0.2		0.05	507.8			0.02	0.05	0.002	0.04		0.05	1	0.1	0.21		1661.2	0.1		4.9	4.9
3167	0.07	0.5	0.2		0.05	738.9			0.07	0.05	0.0005	0.01		0.05	1	0.1	0.19		1674.2	0.1		4.6	7.1
3168	0.17	0.4	0.2		0.05	823.2			0.06	0.05	0.001	0.01		0.05	1	0.1	0.29		1032.4	0.1		4.9	4.3
3169	0.26	0.4	0.2		0.05	625			0.05	0.05	0.001	0.01		0.05	1	0.1	0.19		1298.6	0.05		4.8	4.1
3170	0.06	0.4	0.1		0.4	723.1			0.05	0.05	0.001	0.01		0.05	1	0.1	0.21		1500.6	0.2		4.4	5.3
3171	0.26	0.4	0.3		0.05	499.3			0.03	0.1	0.001	0.03		0.05	1	0.1	0.19		1374.2	0.05		5.3	19.6
3172	0.24	0.4	0.1		0.05	789			0.05	0.05	0.001	0.01		0.05	1	0.1	0.39		1166.4	0.1		4.4	7.1
3173	0.36	0.4	0.2		0.2	534.6			0.03	0.1	0.001	0.02		0.05	1	0.1	0.23		1079.9	0.1		4.6	3.6
3174	0.33	0.5	0.1		0.1	413.9			0.04	0.1	0.002	0.01		0.05	1	0.1	0.27		1575.4	0.1		4.4	7
3175	0.28	0.5	0.05		0.1	627.6			0.03	0.1	0.002	0.01		0.05	1	0.1	0.24		1801	0.05		4.6	8.1

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
3176	0.27	0.4	0.2		0.2	560.1			0.07	0.1	0.003	0.01		0.05	1	0.1	0.22		1372.3	0.05		4.5	7.9
3177	0.22	0.4	0.3		0.1	573.1			0.04	0.05	0.001	0.01		0.05	1	0.1	0.21		1474.7	0.2		4.5	7.5
3180	0.23	0.4	0.2		0.1	511.6			0.03	0.05	0.001	0.01		0.05	1	0.1	0.14		1554.7	0.1		4.8	6.9
3194	0.46	0.5	0.3		0.2	232.5			0.02	0.1	0.003	0.06		0.05	1	0.1	0.15		1454.2	0.05		4.7	5.1
3195	0.92	0.5	0.3		0.1	569.8			0.04	0.05	0.001	0.01		0.05	1	0.1	0.14		1156.7	0.1		4.8	6.3
3196	0.17	0.4	0.3		0.2	1021.4			0.06	0.05	0.001	0.02		0.05	1	0.1	0.14		2066.4	0.05		6	9.3
3197	0.96	0.4	0.2		0.2	896.5			0.06	0.1	0.002	0.03		0.05	1	0.1	0.17		1776.3	0.05		5.6	11.8
3198	1.51	0.6	0.3		0.2	422.4			0.04	0.1	0.001	0.42		0.05	1	0.1	0.29		1292.6	0.1		4.8	4.5
4001	0.27	1.1	2.3	1.39	0.3	109.1	< .05	0.18	< .02	1.5	0.006	0.07	0.07	4.9	14	< .2	5	0.4	145.1	4.8		5.2	240.6
4002	0.2	0.3	1.7	0.21	0.2	135.4	< .05	0.03	< .02	0.2	0.001	0.03	0.01	9.5	2	< .2	0.84	0.08	127	1.3		5.2	293.8
4003	0.26	0.5	2.3	0.42	< .1	118.4	< .05	0.06	0.04	0.4	0.002	0.04	0.02	12.3	5	< .2	1.8	0.15	109	2.2		5.5	310.6
4004	0.34	0.8	3	1.09	0.2	106.5	< .05	0.15	0.02	1.3	0.004	0.07	0.06	12.4	11	< .2	4.46	0.37	71.2	4.3		5.9	284.3
4005	0.27	0.3	2.6	0.24	0.3	127.6	< .05	0.03	0.03	0.2	0.001	0.02	0.02	22.1	4	< .2	1.23	0.11	183.2	2.2		5.5	244.9
4006	0.4	0.9	2.6	1.22	0.4	113.4	< .05	0.15	0.02	1.3	0.003	0.06	0.07	23.2	12	< .2	4.92	0.42	148.2	5.8		5.6	226.5
4007	0.3	0.5	1.7	0.47	1.3	103.3	< .05	0.07	0.03	0.6	0.002	0.03	0.03	5.9	7	< .2	2.1	0.22	103.7	3.8		5.1	258.3
4008	0.39	0.8	2.6	1.17	0.2	110.7	< .05	0.15	< .02	1	0.004	0.05	0.06	6.8	12	< .2	4.33	0.4	247.3	5		5.3	202.9
4009	0.17	0.3	1.4	0.16	0.4	135.8	< .05	0.01	< .02	0.1	< .001	< .02	0.01	4.7	2	< .2	0.62	0.05	96.1	0.9		5.4	225.4
4010	0.16	0.3	1.2	0.24	< .1	115.1	< .05	0.03	0.02	0.2	0.001	0.02	0.01	2.3	3	< .2	0.97	0.08	79.4	1.3		5.7	114.6
4011	0.23	0.5	1.1	0.72	0.1	184.7	< .05	0.09	< .02	0.8	0.003	0.05	0.04	3.8	7	< .2	2.74	0.2	105.7	2.5		6.2	191.9
4011	0.26	0.5	1.1	0.78	0.2	195.8	< .05	0.11	0.02	0.8	0.002	0.05	0.04	3.9	7	< .2	2.8	0.22	102.5	2.7		6.2	184.9
4013	0.18	0.4	1.1	0.41	0.1	147.2	< .05	0.05	< .02	0.3	0.002	0.03	0.02	1.6	4	< .2	1.55	0.15	59	1.6		6.3	190.5
4014	0.23	0.4	2.7	0.46	< .1	165	< .05	0.06	0.02	0.5	0.003	0.04	0.03	8.1	6	< .2	1.86	0.19	62.8	2.7		6.7	737.5
4015	0.21	1	2.4	0.87	0.1	123.4	< .05	0.12	0.03	1.2	0.004	0.06	0.06	8.7	13	< .2	3.45	0.29	64.6	6.3		4.5	889.7
4016	0.14	0.5	0.9	0.42	< .1	134.8	< .05	0.05	0.03	0.6	0.003	0.03	0.02	5.1	7	< .2	1.55	0.15	52	3.8		4.8	858.5
4017	0.35	0.7	7.3	0.91	< .1	253.6	< .05	0.11	< .02	0.8	0.005	0.04	0.05	12.8	12	< .2	3.73	0.33	42.8	4.9		7.5	314
4018	0.35	0.8	8	0.95	0.4	262.6	< .05	0.13	< .02	0.8	0.005	0.05	0.05	12.6	12	< .2	3.83	0.29	44.4	5.3		7.6	312.7
4019	0.17	0.3	1.8	0.27	0.3	146.6	< .05	0.04	< .02	0.2	0.003	0.02	0.02	5.7	4	< .2	1.34	0.13	55.1	1.4		6.7	419.5
4020	0.14	0.2	1.6	0.12	0.2	134.6	< .05	0.02	< .02	0.1	0.001	< .02	0.01	12.7	3	< .2	0.56	0.06	70.8	1.2		5.1	673.2
4021	0.14	0.2	1.7	0.17	< .1	172.6	< .05	0.02	< .02	0.1	0.001	0.02	0.01	17.9	3	< .2	0.8	0.08	59.6	1.3		5.7	419.3
4022	0.13	0.3	1.6	0.14	< .1	118.9	< .05	0.02	< .02	0.1	0.001	0.02	0.01	6	2	< .2	0.57	0.06	74.8	0.7		5.8	402.6
4023	0.19	0.2	1.3	0.15	0.2	138.5	< .05	0.02	< .02	0.1	0.001	0.02	0.01	11	3	< .2	0.75	0.07	49.6	1		6.1	240.6
4023	0.14	0.3	1.1	0.23	< .1	125.4	< .05	0.03	0.02	0.1	0.001	0.02	0.02	3.4	3	< .2	1.04	0.08	56.2	0.9		5.9	287.8
4025	0.24	0.7	2.1	0.86	0.4	116.2	< .05	0.12	< .02	1	0.002	0.05	0.04	14.2	9	< .2	3.12	0.3	77.2	3.5		5.8	378.3
4026	0.31	0.9	1.7	1.07	0.2	138.8	< .05	0.15	< .02	1.3	0.003	0.08	0.07	14.1	12	< .2	4.9	0.38	66.8	4.6		5.7	422.3
5001	0.51	1.7	0.7	2.71	0.4	49.3	< .05	0.38	0.05	3.8	0.007	0.16	0.15	1.5	21	< .2	10.29	0.85	119.8	4.7	15	7.6	72.3
5002	0.55	1.7	1.3	2.63	0.4	125.4	< .05	0.36	0.06	3.2	0.008	0.14	0.13	2.8	24	< .2	9.67	0.88	97.4	5.7	15	7.9	113.2

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
5003	0.59	1.6	1.9	2.98	0.4	61.5	< .05	0.39	0.05	3.3	0.006	0.16	0.15	3.6	20	< .2	10.9	0.97	137.1	5.3	15	7.3	112.7
5004	0.56	1.4	1.1	2.6	0.5	66.6	< .05	0.35	0.04	3.2	0.005	0.14	0.14	3.5	17	< .2	9.63	0.86	104.8	5	15	7.9	102.8
5005	0.54	2.2	0.7	3.31	0.5	46.3	< .05	0.42	0.04	5.3	0.007	0.21	0.15	3.8	27	< .2	11.75	0.99	141.9	7.4	15	6.9	54
5006	0.71	2.6	1	4.09	0.6	49.3	< .05	0.5	0.09	6.4	0.007	0.18	0.19	5.3	35	< .2	14.31	1.3	135.6	8.7	15	5.8	52.1
5007	0.45	2.4	0.6	3.68	0.5	47.8	< .05	0.47	0.04	5.2	0.009	0.17	0.16	1.5	35	< .2	12.86	1.09	109.9	5.1	15	5.6	51.4
5008	0.59	2.1	1	3.4	0.6	60.2	< .05	0.42	0.03	3.7	0.008	0.12	0.18	1.8	34	< .2	12.42	1.09	142.7	4.4	15	7.4	98.2
5009	0.58	2.8	1	3.42	0.5	58.1	< .05	0.45	0.06	4.9	0.007	0.2	0.19	2.4	35	< .2	13.17	1.15	86.1	7.6	15	7.3	69
5010	0.5	1.8	0.5	2.97	0.4	59.8	< .05	0.37	0.04	4.2	0.006	0.16	0.15	1.2	22	< .2	10.62	0.9	80.9	6	15	8	74.5
5011	0.5	1.8	0.5	2.98	0.4	62	< .05	0.39	0.06	4.4	0.007	0.18	0.15	1.3	24	< .2	10.7	0.86	81	6.1	15	8	76.2
5011	0.5	2.2	0.8	3.07	0.5	82.3	< .05	0.35	0.05	4.9	0.009	0.22	0.15	2.2	27	< .2	9.66	0.87	98.7	6.4	15	7.8	113.1
5013	0.6	2	0.9	2.89	0.5	80.1	< .05	0.4	0.04	4.5	0.009	0.17	0.16	1.3	28	< .2	11.07	0.93	94.5	6.1	15	7.8	94.3
5014	0.44	1.8	1.2	2.8	0.5	83.8	< .05	0.38	0.05	4	0.008	0.18	0.17	2.7	22	< .2	10.55	0.86	81.8	4.6	15	7.9	154.1
5015	0.51	1.9	1.9	2.25	0.4	109.2	< .05	0.28	0.03	3.1	0.009	0.21	0.12	4.3	23	< .2	8.12	0.71	97.4	5.6	7.5	7.5	284
5016	0.47	2.1	1.3	2.29	0.5	98.3	< .05	0.31	0.05	3.4	0.013	0.25	0.13	4.2	27	< .2	9.08	0.83	72.3	5.1	7.5	7.6	226
5017	0.47	1.8	3.6	2.62	0.5	173.3	< .05	0.36	0.07	3	0.008	0.13	0.14	5.9	29	< .2	10.39	0.94	65.1	5.2	15	8	129.5
5018	0.62	1.9	1.1	2.98	0.4	81.3	< .05	0.37	0.04	4	0.009	0.2	0.15	3.2	23	< .2	10.85	0.9	78.4	4.9	15	8	104.6
5019	0.57	2.2	1.2	3.05	0.4	65.4	< .05	0.41	0.06	5.1	0.007	0.18	0.15	3.6	29	< .2	11.12	0.89	80.7	8.3	15	8.1	103.9
5020	0.49	2.1	1	3.16	0.5	55.1	< .05	0.39	0.07	5.1	0.008	0.18	0.15	3.4	28	< .2	10.88	0.86	80.7	7.1	15	7.6	73.5
5021	0.41	1.9	1.3	2.78	0.6	53.5	< .05	0.34	0.02	4.5	0.01	0.17	0.13	8.4	21	< .2	9.63	0.83	82.5	5.2	15	6.7	138.2
5022	0.58	1.9	1.1	2.9	0.5	59.6	< .05	0.38	0.05	4.4	0.008	0.2	0.15	12.9	25	< .2	10.64	0.89	74.2	6.6	15	7.5	82.8
5023	0.4	2.7	0.7	3.65	0.6	48.5	< .05	0.44	0.07	6.4	0.007	0.19	0.19	1.6	30	< .2	12.61	1.13	77.2	8.7	15	7.7	62
5023	0.38	2.6	0.6	3.75	0.8	45.8	< .05	0.45	0.07	6.1	0.008	0.19	0.17	1.6	30	< .2	12.06	0.99	77.6	8.3	15	7.7	62.5
5025	0.43	2.1	1	2.76	0.8	62.9	< .05	0.35	0.05	4.2	0.008	0.14	0.14	16.4	26	< .2	10.36	0.83	78	6.5	15	7.4	273.5
5026	0.45	2	0.8	2.83	0.8	78.7	< .05	0.42	0.05	4.8	0.006	0.16	0.14	10.7	27	< .2	9.61	0.82	77.6	7.1	15	7.1	133.7
6001	0.11	0.3	0.4		0.6	43.8			0.02	0.2	0.006	0.04		0.3	10		2.13		29.3	0.2	15	4.9	43.1
6002	0.16	0.4	0.7		0.8	48.4			0.02	0.3	0.005	0.04		0.6	11		5.82		29.4	0.2	15	5.2	59.6
6003	0.12	0.3	0.6		0.9	43.4			0.02	0.3	0.005	0.05		0.2	8		2		26.2	0.3	15	5.2	48.6
6004	0.14	0.3	0.6		1	45.5			0.01	0.2	0.004	0.04		0.2	8		2		22.6	0.3	15	5.3	65.3
6005	0.13	0.4	1.1		1	56.5			0.02	0.3	0.006	0.04		0.2	11		1.86		40.9	0.3	15	5	52.3
6006	0.12	0.3	0.7		0.8	55.3			0.01	0.2	0.004	0.03		0.1	8		1.39		83.8	0.4	15	5.4	70.7
6007	0.19	0.8	0.6		0.7	67.1			0.01	0.6	0.007	0.06		1.1	16		5.18		164.3	0.9	15	5.9	65.3
6008	0.13	0.4	0.5		1.5	32.8			0.01	0.2	0.006	0.04		0.2	11		2.22		30.9	0.1	15	4.9	45.2
6009	0.12	0.3	0.4		2	47.7			0.01	0.2	0.006	0.03		0.1	7		1.55		81.2	0.3	15	5.8	60.2
6010	0.07	0.5	0.5		0.7	26.8			0.01	0.3	0.001	0.04		0.2	8		1.75		28.9	0.3	15	4.6	42.6
6011	0.1	0.3	0.5		1.1	44.3			0.02	0.2	0.006	0.04		0.1	6		1.46		68.9	0.2	15	5.2	62.2
6013	0.16	0.3	0.9		0.4	81.1			0.02	0.2	0.003	0.03		0.1	6		0.88		201.8	0.9	15	5	111

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
6014	0.1	0.3	0.3		0.5	68.1			0.02	0.1	0.004	0.03		0.1	6		1.2		123.2	0.3	15	5.6	80.7
6015	0.28	0.7	0.7		0.7	58.7			0.05	0.5	0.007	0.08		0.7	22		5.99		144.2	0.6	15	5.7	60.8
6016	0.24	0.6	0.7		0.4	60.2			0.05	0.5	0.007	0.07		0.6	17		5.18		156.7	0.5	15	5.9	61.3
6017	0.18	0.4	0.5		0.7	55			0.02	0.3	0.004	0.04		0.3	9		2.54		28.3	0.8	15	5.5	98.1
6018	0.14	0.4	0.7		0.5	68.9			0.01	0.2	0.006	0.04		0.2	8		1.97		69	0.4	15	5.5	78.1
6019	0.1	0.3	0.5		0.7	61.4			0.01	0.1	0.003	0.03		0.1	6		0.8		155.3	0.3	15	5.4	70.8
6020	0.11	0.4	0.8		0.6	83.9			0.02	0.2	0.006	0.04		0.2	10		1.07		227.3	0.5	15	6.1	66.2
6021	0.09	0.5	0.3		1.1	32.2			0.03	0.4	0.006	0.05		0.1	11		1.74		91.6	0.4	15	4.9	30.9
6022	0.1	0.4	0.5		1	66.8			0.01	0.2	0.01	0.03		0.1	10		1.86		127	0.5	15	5.8	50.8
6023	0.1	0.5	0.4		1.8	57			0.02	0.3	0.005	0.04		0.2	13		2.21		148.3	0.3	15	5.9	34.7
6025	0.13	0.4	0.5		0.7	48.5			0.01	0.3	0.004	0.04		0.2	10		1.98		94.2	0.6	7.5	5.6	46.5
6026	0.2	1.4	0.6		0.6	44.1			0.02	1.3	0.008	0.07		0.3	23		4.73		181.8	1.4	15	5.8	35.6
6027	0.2	0.6	0.6		0.4	53.5			0.02	0.4	0.003	0.05		0.3	14		7.5		59.1	1.3	15	5.3	53.3
6028	0.21	0.6	0.7		0.7	62.2			0.01	0.4	0.006	0.06		0.3	13		5.83		85.5	1.2	15	5.7	60.1
6029	0.15	0.6	0.4		0.4	66.6			0.03	0.4	0.003	0.04		0.3	11		6.07		150.4	1	15	5.8	66.1
6030	0.22	0.2	1.4		0.3	123.3			0.02	0.1	0.0005	0.03		6	4		1.31		149.6	0.8	15	6.5	67.5
6031	0.3	2.2	1		0.6	55.7			0.04	2.9	0.006	0.11		2.8	27		10.06		101.7	5.1	15	6.3	33.8
6032	0.25	2.3	1		0.8	41.6			0.01	3.3	0.005	0.1		1.2	29		8.18		111.3	5.1	15	6.4	32.7
6033	0.1	0.3	0.9		0.3	66.6			0.03	0.2	0.003	0.03		0.6	6		1.26		167.1	1	15	6.4	64.3
6034	0.1	0.4	0.5		0.3	42.5			0.01	0.3	0.005	0.03		0.1	6		1.64		97.5	0.9	15	6.1	51.2
6035	0.07	0.3	0.5		0.8	62.3			0.02	0.2	0.003	0.03		0.1	4		0.87		183.3	0.8	15	6.1	73.2
6036	0.11	0.4	0.7		0.9	49			0.02	0.3	0.007	0.04		0.1	8		1.51		116.7	0.7	15	5.9	49.3
6037	0.11	0.4	0.7		1	54.7			0.01	0.3	0.007	0.04		0.1	7		1.44		116.9	0.7	15	5.9	52.9
6038	0.08	0.2	0.6		0.5	56.5			0.01	0.1	0.002	0.02		0.1	2		0.5		84.4	0.4	15	5.8	80.7
6039	0.14	0.5	0.6		0.8	57.6			0.02	0.5	0.006	0.04		0.3	9		3.57		88.5	1.1	15	6.1	59.6
6040	0.14	0.4	0.7		0.7	65.2			0.02	0.4	0.005	0.04		0.2	8		3.52		80.4	1.1	15	6.2	71.9
6041	0.33	0.4	1.7		0.7	109.8			0.02	0.3	0.003	0.05		8	9		6.89		34	2	15	6	67.9
6042	0.13	0.6	0.5		1.4	86.9			0.02	0.5	0.005	0.05		0.2	13		1.22		43.4	1.4	15	5.3	51.3
6043	0.1	0.3	0.5		0.4	56.9			0.02	0.3	0.004	0.03		0.1	5		2.11		41.3	0.7	15	6	68.3
6044	0.1	0.2	0.5		0.6	63.2			0.02	0.2	0.003	0.02		0.1	3		1.39		19.1	0.6	15	6	86.9
6045	0.43	0.5	1.7		0.4	193			0.04	0.5	0.003	0.05		1.2	10		1.13		33.4	2	15	6.5	81.9
6046	0.21	1	9.7		2.3	177.7			0.06	1.2	0.007	0.04		10.6	16		5.23		60.7	5.2	15	7.3	104.6
6047	0.33	0.3	7.7		1.4	218			0.05	0.3	0.003	0.01		8.2	10		2.09		55.6	2.8	15	6.9	71.8
6049	0.24	0.5	1.8		2.1	159.6			0.07	0.8	0.004	0.04		2.9	12		1.59		117	2.7	15	6.6	84.9
6050	0.23	0.3	5.3		1.5	169.9			0.02	0.3	0.003	0.02		3	8		2.7		37	2.7	15	6	60.5
6051	0.09	0.8	2		1.2	74.3			0.03	1	0.004	0.02		7	7		1.98		18.2	2.6	15	3.9	37.8

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
6052	0.11	0.8	1.8		1.8	63.5			0.02	1.1	0.005	0.03		6.4	7		1.9		18.8	2.4	15	3.7	35.2
6053	0.18	0.2	2.7		1.1	236			0.05	0.1	0.002	0.02		16.7	6		1.11		30.6	1.1	15	6.6	73.5
6054	0.15	0.7	3		1.7	121.6			0.03	0.7	0.005	0.04		6.2	19		7.38		37.1	5.7	15	5.9	55
6055	0.09	0.4	0.4		2.2	47.1			0.02	0.4	0.006	0.08		0.2	12		1.4		190.2	0.5	15	5.2	28.9
6056	0.12	0.3	0.8		1.2	102.3			0.03	0.2	0.004	0.04		0.1	4		1.05		103.3	0.6	15	5.9	58.4
6057	0.14	0.3	1.2		0.7	70.5			0.02	0.2	0.005	0.06		0.2	7		1.32		78.3	0.5	15	5.3	38.7
6058	0.11	0.5	0.4		1.3	60.4			0.02	0.4	0.006	0.05		0.2	11		1.67		285.5	0.8	15	5.3	36.3
6059	0.13	0.5	1.4		0.9	123.6			0.03	0.4	0.005	0.02		1.1	11		1.68		39	1.5	15	5.2	63.9
6060	0.15	0.6	1.4		0.8	133.6			0.03	0.5	0.005	0.03		1.2	14		1.82		44	1.6	7.5	5.2	65.1
6061	0.15	0.3	0.5		1.2	54.2			0.02	0.2	0.004	0.02		0.2	5		0.57		109.4	0.9	15	4.8	55.6
6062	0.26	1.8	3.3		1	167.9			0.07	2.4	0.007	0.09		38.1	25		10.8		171.7	7.2	15	5.8	50.7
6063	0.18	0.3	0.8		1.4	124			0.05	0.3	0.003	0.04		24.2	6		1.39		106.7	1.3	7.5	5.9	71.6
6064	0.21	0.3	0.7		0.9	124.1			0.02	0.2	0.003	0.04		35.6	8		1.25		75.9	1.3	15	6	76.7
6065	0.21	0.5	0.6		0.7	122			0.03	0.6	0.003	0.05		1.1	13		7.69		111.3	1.9	15	6.4	61.5
6066	0.1	0.2	0.5		0.6	62.5			0.03	0.1	0.004	0.04		0.3	11		1.75		105.2	0.2	15	4.9	44.3
6067	0.24	0.6	0.6		1.6	98			0.03	0.4	0.004	0.05		1.1	11		3.89		46.6	1.1	15	5.6	73.3
6068	0.17	0.9	0.5		5	63.3			0.03	1	0.004	0.05		2.6	16		4.16		58.7	1.5	15	5.1	43.9
6069	0.17	0.8	0.4		2.4	236.4			0.02	0.5	0.005	0.06		0.2	11		4.72		213.7	1.5	15	5.6	40.5
6070	0.26	2.4	0.7		2.7	142.8			0.01	1.7	0.005	0.1		0.6	28		10.14		166.1	4.2	15	4.9	18.5
6071	0.16	0.9	0.5		2.1	255.8			0.01	0.6	0.002	0.07		0.2	13		6		162.9	2.4	15	5.3	40.1
6072	0.13	0.5	0.4		1.6	248.4			0.02	0.4	0.004	0.04		0.1	7		2.33		167.1	1.4	15	6.1	61.2
6073	0.11	0.4	0.4		1	328.8			0.03	0.2	0.003	0.03		0.1	5		2.74		450.3	1.1	15	5.9	51.2
6074	0.12	0.4	0.3		0.4	98.3			0.01	0.4	0.007	0.04		0.1	11		1.67		133.3	1.1	15	6.4	48.9
6075	0.1	0.3	0.2		0.3	119.9			0.01	0.3	0.005	0.03		0.1	7		1.45		194.5	0.8	15	5.9	37.7
6076	0.13	0.4	0.4		0.3	103.6			0.01	0.3	0.007	0.04		0.1	10		1.46		102.3	1	15	5.9	43.2
6077	0.17	0.7	0.5		0.5	106.7			0.01	0.5	0.007	0.04		0.2	15		1.7		154	1.6	15	6	42.9
6078	0.14	1.1	0.4		0.5	62.6			0.01	0.5	0.011	0.05		0.2	22		1.63		155.8	1.3	15	5.5	25.4
6079	0.16	1	0.4		0.5	82.8			0.01	0.5	0.009	0.04		0.2	18		2.34		246	1.4	15	5.5	34.5
6082	0.1	1.1	0.3		0.6	122.5			0.01	0.3	0.028	0.06		0.2	13		1.59		65	1.8	15	5.8	42.9
6083	0.12	0.7	0.4		1.6	146.1			0.01	0.2	0.017	0.04		0.2	9		1.43		45.9	1.8	15	5.6	51.1
6084	0.1	1.6	0.3		1.1	136.8			0.01	0.3	0.037	0.05		0.4	14		2.67		62.3	4.2	15	5.8	41.1
6085	0.09	0.6	0.4		0.9	208			0.01	0.2	0.016	0.03		0.2	6		0.92		68.5	2.1	15	5.6	45.7
6086	0.56	2.7	1.8		1.3	290.7			0.02	0.9	0.049	0.1		16.6	130		14.86		139.1	8.3	7.5	6.1	35.7
6087	0.35	0.6	1		0.5	249.2			0.03	0.3	0.008	0.07		3.4	69		7.34		37.3	2.5	15	6.4	39.9
6088	0.18	1.1	0.3		1.4	109.1			0.02	0.7	0.008	0.07		0.3	19		2.94		50.9	2.2	15	5.7	31.8
6089	0.14	0.8	0.4		0.4	147.4			0.01	0.4	0.013	0.05		0.3	15		6.42		76.5	1.6	15	6	30.1

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
6090	0.13	1.4	0.5		2	180.1			0.02	0.6	0.019	0.05		0.3	15		2.11		57.8	4.4	15	5.9	35.9
6091	0.08	5.7	0.4		0.8	99.2			0.01	6.4	0.061	0.1		0.5	34		8.95		69.3	25.2	15	6.4	26.8
6092	0.09	0.8	0.3		0.3	210.2			0.01	0.6	0.014	0.05		0.2	10		2.38		32.9	4.7	15	6.1	51.1
6093	0.11	1.4	0.3		0.8	186.8			0.01	0.7	0.023	0.05		0.3	11		3.32		36.4	7.2	15	6.2	46.6
6096	0.1	0.6	0.4		0.6	196.2			0.02	0.4	0.01	0.05		0.2	5		1.29		68.5	2	15	6.4	52.5
6097	0.1	2.3	1		1.3	194.6			0.02	0.8	0.03	0.07		2	20		5.57		89.3	3.3	15	6.2	38.6
6098	0.1	0.5	1.1		0.3	296.1			0.02	0.2	0.009	0.03		0.7	7		1.53		48	1.8	15	6.4	55.9
6099	0.1	1.3	0.3		0.7	65.4			0.02	0.7	0.02	0.06		0.3	14		1.93		86.2	1.6	7.5	5.7	45.2
6100	0.12	0.8	0.5		0.3	103.4			0.02	0.5	0.012	0.05		0.3	14		3.15		79.3	1.5	15	5.6	43.9
6101	0.15	1.4	0.6		0.4	131			0.02	0.8	0.007	0.06		0.4	17		7.03		54.5	3	15	5.3	44.9
6102	0.21	0.6	0.9		0.3	229.5			0.03	0.3	0.002	0.05		0.5	11		6.62		122.9	1.4	15	5.7	39.8
6103	0.17	1.5	0.6		0.7	164.3			0.02	1	0.012	0.07		0.3	17		3.03		60.3	4.9	15	5.8	35.4
6104	0.11	1.1	0.5		0.5	152			0.02	0.3	0.021	0.05		0.3	13		2.19		49.3	2.3	15	5.5	43.7
6105	0.17	0.6	0.7		2.1	108.3			0.02	0.5	0.004	0.05		0.3	11		4.01		27	2.9	15	5	48.6
6106	0.12	0.4	0.5		0.4	120.3			0.01	0.2	0.005	0.06		0.1	8		1.48		27.4	1	15	4.8	38.3
6107	0.12	0.3	0.3		1.8	132.6			0.01	0.1	0.005	0.04		0.1	6		1.39		31.9	0.9	15	5.2	47.1
6110	0.11	0.5	0.3		1.4	183.3			0.01	0.1	0.015	0.03		0.2	6		1.14		61.2	2.2	15	5.6	59.2
6111	0.12	1.5	0.5		0.7	134.3			0.01	0.3	0.034	0.06		0.4	19		3.58		86	4.2	15	5.8	62.3
6112	0.11	0.6	0.5		0.4	124.9			0.01	0.2	0.009	0.04		0.2	14		2.22		77.1	1.9	15	5.2	40.8
6113	0.1	0.9	0.3		0.3	196.2			0.01	0.2	0.022	0.03		0.2	11		1.74		77.7	4.5	15	5.3	42.5
6114	0.11	0.5	0.4		0.3	242.5			0.03	0.1	0.015	0.04		0.1	10		0.97		44.1	2.1	15	5.3	41.3
6115	0.1	0.3	0.5		0.9	181.3			0.01	0.1	0.009	0.03		0.1	4		0.76		28.4	1.4	7.5	5.5	51.7
6116	0.24	0.6	1.1		0.4	317.5			0.02	0.2	0.012	0.06		4.8	79		4.9		45.6	2.4	15	6.2	56
6117	0.12	0.5	0.5		0.3	110.1			0.01	0.3	0.005	0.04		0.2	10		1.6		49.3	1.1	15	5.9	39.6
6118	0.14	1.1	0.2		0.4	59.5			0.01	0.7	0.005	0.08		0.3	21		2.63		69	1.2	15	4.6	23.9
6119	0.14	0.7	0.5		0.3	138.5			0.03	0.3	0.005	0.08		0.1	16		1.6		86.3	1	15	5.6	38.9
6120	0.16	0.5	0.7		0.6	136.3			0.03	0.3	0.004	0.09		0.2	14		1.68		59.1	1.2	15	5.5	41.5
6121	0.15	0.5	0.6		0.6	158.1			0.01	0.2	0.004	0.08		0.1	8		1.41		56.4	1	15	5.4	53.3
6124	0.1	0.3	0.3		0.4	121.8			0.02	0.2	0.004	0.03		0.1	3		0.97		54.7	0.9	15	5.6	51.2
6125	0.43	1.2	1.1		0.7	204.5			0.03	0.7	0.002	0.07		1.4	17		13.12		51.2	2.3	15	5.1	45.8
6126	0.22	1.4	1.2		0.4	215			0.04	0.9	0.005	0.07		2	20		15.51		119.4	2.8	15	5.8	35.6
6127	0.27	0.6	1.1		0.3	214.9			0.04	0.3	0.003	0.06		2.6	15		7.32		114	1.9	15	6	52.7
6128	0.11	0.5	1.9		0.3	252.3			0.01	0.2	0.004	0.03		0.4	8		2.06		295.2	1.3	15	5.4	36.2
6129	0.2	0.8	2.9		0.3	385.7			0.04	0.5	0.003	0.05		0.6	19		16.74		422.8	3	15	5.7	41.9
6130	0.31	4.7	3.4		0.8	297.2			0.03	2.6	0.006	0.09		3.9	28		61.49		462.7	9.3	15	5.8	27.2
6131	0.24	0.4	8.1		0.5	510.6			0.06	0.3	0.001	0.04		11.5	4		4.42		105.3	3	15	6.7	47.2

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
6132	0.29	0.4	4.6		0.5	273.4			0.05	0.2	0.003	0.06		5	12		3.73		103.9	1.8	15	6.6	40.6
6133	0.22	1.1	2.6		0.4	200.4			0.01	0.5	0.006	0.08		5.6	23		5.48		114.3	2.7	15	6.4	38.5
6134	0.23	0.2	4.8		0.4	287.6			0.01	0.1	0.002	0.03		22.8	2		0.76		169.5	0.6	15	6.3	66.8
6135	0.22	0.2	5.2		0.1	303.5			0.03	0.1	0.002	0.04		26.3	4		0.85		188.9	0.7	15	6.3	72.2
6138	0.12	0.3	2.2		0.1	618.8			0.08	0.1	0.002	0.03		2.1	5		0.46		64.4	0.4	15	6.1	60.3
6139	0.19	0.9	1		0.4	269.8			0.04	0.5	0.004	0.05		1.6	16		5.37		66.5	3.6	15	6.5	31.2
6140	0.11	0.8	0.7		0.3	203.1			0.02	0.4	0.004	0.04		0.6	12		3.71		241.6	2.6	15	6.3	39.9
6141	0.14	1.6	2.4		0.8	210			0.01	0.8	0.004	0.06		1.2	18		7.49		535	4.3	15	6.1	33.4
6142	0.15	0.7	0.5		0.7	74.8			0.01	0.6	0.005	0.05		0.4	12		4.18		42.6	1.6	15	5.1	39.2
6143	0.11	0.3	0.3		0.3	65			0.02	0.2	0.004	0.04		0.1	10		1.21		24.4	0.5	15	5.5	78.1
6144	0.16	0.2	0.9		0.3	360.8			0.02	0.2	0.002	0.03		1	4		0.8		16.1	1.1	15	7.2	108.3
6145	0.13	0.2	0.9		0.3	256.8			0.03	0.2	0.003	0.02		1.3	1		1.66		41.9	1.1	15	6.2	53.5
6146	0.13	0.3	0.3		0.6	58.1			0.02	0.3	0.005	0.07		0.2	14		2.53		36.3	0.4	15	5.3	41.2
6147	0.09	0.2	0.2		0.5	80.3			0.03	0.2	0.007	0.05		0.1	4		3.25		68.3	0.4	15	5.4	35.2
6148	0.08	0.3	0.4		0.6	85.3			0.02	0.2	0.006	0.06		0.1	11		2.56		41	0.5	15	5.5	33.5
6149	0.1	0.2	0.5		0.2	126			0.01	0.2	0.005	0.04		0.1	4		1.98		35.9	0.5	15	5.6	64.6
6150	0.09	0.3	0.3		0.8	80.6			0.03	0.2	0.008	0.06		0.1	11		2.56		39.6	0.5	15	5.3	33.5
6152	0.1	0.3	0.4		0.3	68.8			0.03	0.2	0.004	0.03		0.1	6		1.31		49.2	0.7	15	5.5	68.9
6153	0.17	0.5	0.4		0.4	20.3			0.02	0.3	0.007	0.04		0.3	10		2.09		20.5	0.5	15	3.9	27.3
6154	0.15	0.6	0.4		0.5	16.3			0.01	0.4	0.005	0.04		0.5	12		3.18		25.4	0.6	15	3.6	38.2
6155	0.53	0.7	4.3		0.5	208.3			0.04	1.2	0.002	0.04		4.1	16		21.34		140.8	6.4	15	5.2	28.9
6156	0.31	1.4	1.1		0.7	74.2			0.04	1.6	0.006	0.07		2.3	18		18.17		150.6	2	15	4.2	26.1
6157	0.24	0.8	0.9		0.5	57.1			0.01	0.5	0.005	0.04		1.1	9		11.64		98.5	0.9	15	3.9	36.7
6158	0.36	1	1.1		0.5	80.1			0.07	0.7	0.004	0.08		1.8	16		10.22		107	1.3	15	4.4	40.7
6159	0.33	0.9	1		0.8	46.3			0.03	0.4	0.006	0.05		0.8	12		6.63		82.5	1	15	3.8	32.3
6160	0.4	1	1.3		2.1	38.1			0.01	0.3	0.006	0.05		0.9	8		4.36		64.4	1.1	15	3.8	39.9
6161	0.19	0.5	1.3		0.7	26.8			0.01	0.3	0.004	0.04		0.1	11		1.41		74.3	0.9	15	3.8	44
6162	0.13	0.6	0.6		0.4	21.8			0.01	0.2	0.007	0.04		0.1	7		1.17		83.9	1.1	15	3.6	66.4
6163	0.19	0.4	0.7		1.4	35.7			0.01	0.1	0.007	0.03		0.2	8		1.94		99.4	0.5	15	3.7	47.6
6166	0.13	0.3	0.7		0.8	30.5			0.02	0.2	0.008	0.06		0.6	15		3.65		83.7	0.3	15	3.9	30.2
6167	0.17	0.4	0.9		0.9	64.4			0.01	0.2	0.006	0.05		0.1	13		1.92		80.4	0.8	15	5.1	47.9
6168	0.4	0.8	1.2		0.8	119.5			0.06	0.6	0.007	0.1		1.1	17		16.74		158.3	1.2	7.5	6	60.4
6169	0.19	0.9	0.7		0.6	56.2			0.02	0.4	0.008	0.04		0.6	12		6.49		82.5	1.3	15	4.1	29.9
6170	0.13	0.3	0.7		0.4	115.9			0.04	0.2	0.007	0.06		0.2	11		4.6		243.3	0.5	15	5.6	50.4
6171	0.11	0.3	0.5		0.5	56.7			0.02	0.2	0.006	0.06		0.2	9		2.44		245.6	0.3	15	4.8	43.7
6172	0.15	0.5	0.7		0.6	61.6			0.03	0.4	0.005	0.07		0.4	12		4.94		89.4	0.6	15	4.6	37.5

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
6173	0.21	0.6	1		0.6	72.5			0.04	0.4	0.006	0.08		1	14		12.28		151.1	0.6	15	5.1	43.7
6174	0.15	0.5	0.8		0.3	65.1			0.06	0.5	0.005	0.06		0.5	12		6.79		193.6	0.8	15	5.3	45.4
6175	0.18	1	0.8		0.8	53.9			0.01	0.7	0.007	0.06		0.8	10		6.24		56	1.8	15	4.7	57.4
6176	0.21	0.8	1		0.3	97.9			0.02	0.6	0.006	0.05		0.5	3		10.3		76.2	1.4	15	5	54
6177	0.17	0.6	1.1		0.5	100.2			0.01	0.7	0.006	0.06		0.6	4		8.07		136.5	1.6	15	5.1	46.9
6178	0.04	0.2	0.3		0.2	31.4			0.01	0.1	0.002	0.01		0.05	1		0.4		35.8	0.2	7.5	4.8	124.1
6180	0.11	0.4	0.6		0.4	72.3			0.03	0.4	0.006	0.05		0.1	9		1.97		521.5	0.5	15	5.8	35.4
6181	0.15	0.7	3		0.8	119.7			0.01	0.6	0.005	0.06		10.9	15		5.25		145.6	1	15	5.9	57.6
6182	0.1	0.5	0.7		0.9	68.6			0.02	0.3	0.003	0.04		0.8	11		2.45		111	0.3	15	6	34.1
6183	0.22	1.6	7.7		1.4	125.3			0.03	2.1	0.007	0.06		24.5	22		12.37		43.4	7	15	6	34.6
6184	0.24	1.1	8.1		0.7	146.2			0.03	1.3	0.003	0.05		32.1	17		8.58		30.7	5.6	15	6.1	50.7
6185	0.22	1.4	1.7		0.6	74.2			0.03	1.6	0.003	0.07		2.3	29		5.73		126.5	2.4	15	6.2	24.2
6186	0.12	0.6	0.3		0.7	35.8			0.03	0.5	0.004	0.06		0.6	18		2.69		65.7	0.4	15	5.5	28.9
6187	0.11	0.3	2.4		0.5	107.4			0.02	0.3	0.003	0.05		1.9	8		2.03		180	0.6	7.5	6	82.3
6188	0.05	0.2	0.1		0.2	22.9			0.01	0.3	0.004	0.03		0.1	3		0.87		91.5	0.2	15	5.3	20.9
6189	0.08	0.2	0.3		0.1	51			0.01	0.2	0.003	0.02		0.1	3		0.85		295.3	0.3	15	5.3	53.6
6194	0.04	0.2	0.3		2	24.1			0.02	0.1	0.001	0.03		0.5	8		2.8		34.6	0.1	15	3.7	32.8
6195	0.11	0.3	0.5		0.8	56.6			0.02	0.2	0.003	0.04		0.2	11		4.2		172.9	0.3	15	5.2	39.3
6196	0.39	0.5	1.1		1.3	91.8			0.02	0.2	0.0005	0.04		1	12		6.37		46.8	0.5	15	5.2	49
6197	0.07	1.1	0.5		3.2	37			0.03	1.9	0.006	0.07		1.5	30		3.59		55.4	1.1	15	4.3	30.5
6198	0.17	0.5	0.5		0.6	17.4			0.01	0.3	0.005	0.05		0.4	14		1.75		39	0.6	15	3.8	31.7
6199	0.14	0.3	0.3		0.9	47.2			0.01	0.2	0.005	0.02		0.2	7		1.5		15.7	0.4	15	4.1	36.7
6200	0.14	0.3	0.7		0.3	142.8			0.02	0.4	0.006	0.03		2	4		1.18		38.1	1.5	15	5.1	56
6201	0.18	0.4	0.7		1	115.3			0.03	0.2	0.006	0.04		0.5	11		1.85		27.5	0.6	7.5	5.1	68.8
6202	0.17	0.4	0.9		1	70.4			0.03	0.2	0.006	0.03		0.9	7		1.04		13.7	1	15	4	54.8
6203	0.28	0.7	1.2		5.8	107.7			0.03	0.5	0.003	0.07		3.8	12		5.25		25.5	1	15	4.6	41.4
6204	0.25	0.7	1.3		1.4	111.8			0.05	0.5	0.004	0.09		4.2	14		5.79		28.2	0.8	7.5	4.6	40.5
6207	0.15	0.3	0.5		1.1	64.3			0.02	0.2	0.003	0.04		0.3	7		1.35		72.1	0.4	15	4.5	65.9
6208	0.3	0.8	1		0.7	80			0.03	0.5	0.002	0.03		5.7	8		14.56		55.9	1.4	15	4.1	56.4
6209	0.26	0.9	0.6		1.5	46.9			0.02	0.4	0.003	0.04		2.2	6		7.39		57.9	1	15	4.2	56.3
6210	0.13	0.5	1		0.6	80.7			0.02	0.4	0.003	0.04		0.2	7		5.97		225.2	0.5	15	5.3	98.8
6211	0.12	0.5	0.9		0.6	40.7			0.02	0.3	0.004	0.06		0.4	15		3.54		93.9	0.4	15	4.3	43
6212	0.1	0.2	0.5		0.9	87			0.01	0.1	0.002	0.03		0.1	6		1.89		122	0.4	7.5	5.9	120.8
6213	0.2	0.4	0.9		0.9	47.4			0.01	0.1	0.002	0.04		0.1	6		1.81		127.7	0.7	15	3.7	40.2
6214	0.2	0.4	0.5		0.8	17.8			0.01	0.1	0.005	0.02		0.1	4		1.17		34.4	0.2	15	3.5	42.6
6215	0.24	0.6	0.7		1.4	46.3			0.02	0.1	0.004	0.04		0.7	14		4.39		84.2	0.5	15	4.2	52.4

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
6216	0.47	0.7	6		0.5	167.4			0.02	0.4	0.005	0.06		3.1	32		7.41		143.8	3.3	15	6.5	39.8
6217	0.34	1.5	4.9		0.5	151.6			0.02	0.9	0.006	0.07		1.8	27		8.57		191.8	4.2	15	6.7	33.6
6218	0.37	2.5	4.7		0.5	163.1			0.02	1.3	0.006	0.09		1.9	30		9.95		172	5.1	7.5	6.8	26.8
6221	0.11	0.8	1.2		0.3	122			0.02	0.4	0.003	0.04		0.3	12		1.88		145.5	1.9	15	5.2	26.2
6222	0.19	0.8	0.8		0.4	174.8			0.02	0.3	0.002	0.03		0.7	11		8.03		54.7	1.9	7.5	4.3	38
6223	0.55	1	0.4		0.8	188.5			0.03	0.4	0.002	0.04		0.3	16		3.96		90.1	2.4	7.5	5.2	34.4
6224	0.13	1.7	0.7		0.6	114.4			0.02	0.8	0.003	0.06		1.5	18		5.64		73.5	1.5	15	4.8	21.4
6225	0.15	1.1	0.4		0.4	86.3			0.01	0.6	0.003	0.04		0.2	20		2.05		61.9	1.7	7.5	5	23.8
6226	0.1	0.7	0.3		0.3	107			0.01	0.6	0.002	0.03		0.2	13		2.16		49.6	1.6	7.5	5.5	26.9
6227	0.22	1.2	0.7		0.5	193.6			0.02	0.5	0.003	0.05		0.6	21		4.8		31.4	2.1	15	5	35.7
6228	0.1	0.4	0.3		0.3	77.1			0.02	0.3	0.004	0.05		0.1	10		1.2		22.5	0.5	15	5	35.5
6229	0.09	0.5	0.2		0.3	70			0.01	0.4	0.007	0.03		0.1	13		1.47		34.9	0.5	15	5.6	24.4
6230	0.11	0.5	0.5		0.4	140.1			0.02	0.2	0.003	0.05		0.1	11		1.24		68.5	0.9	15	5.7	41.7
6231	0.11	0.5	0.4		0.4	138.7			0.02	0.3	0.004	0.04		0.1	11		1.21		74.1	0.8	15	6	38.3
6232	0.1	0.3	0.4		0.4	138.8			0.02	0.2	0.002	0.03		0.1	9		1.03		64.3	0.7	15	6	38.8
7001	0.21	0.9	0.3	1.55	0.5	9.2	< .05	0.15	< .02	2.5	0.011	0.08	0.03	0.3	21	< .2	2.21	0.19	34.5	0.4	15	6	4.1
7002	0.23	1.3	0.4	1.71	0.8	13.2	< .05	0.18	0.02	2.4	0.007	0.13	0.04	0.4	24	< .2	3.07	0.28	38	0.4	15	5.8	6.2
7003	0.3	1.8	0.6	1.49	0.7	19.7	< .05	0.14	0.04	3.1	0.005	0.16	0.04	0.4	35	< .2	2.48	0.23	52.3	1.4	15	5.8	7.7
7004	0.34	2.2	0.6	1.59	0.7	21.2	< .05	0.16	0.02	4.2	0.004	0.18	0.05	0.5	35	< .2	3.14	0.29	53.5	2.4	15	6	8.2
7004	0.33	2.3	0.7	1.61	0.8	22.2	< .05	0.19	0.07	4.5	0.004	0.19	0.05	0.5	37	< .2	3.4	0.32	56.8	2.6	15	5.9	8
7005	0.2	1.1	0.4	1.92	0.5	12.4	< .05	0.17	0.08	3.6	0.012	0.1	0.04	0.4	25	< .2	2.69	0.23	40.7	0.7	15	6.1	5.8
7006	0.2	1.9	0.5	1.86	0.6	19	< .05	0.19	0.07	3.6	0.007	0.15	0.05	0.4	32	< .2	3.17	0.3	47.8	1.8	15	6.1	6.8
7007	0.2	2.2	0.5	2.1	0.6	20	< .05	0.25	0.04	4	0.008	0.17	0.06	0.6	31	< .2	4.1	0.35	50.7	1.9	15	6.6	8.7
7008	0.25	1.9	0.5	1.7	0.5	16.1	< .05	0.18	0.04	3.8	0.006	0.16	0.05	0.4	31	< .2	3.21	0.32	50.3	1.4	15	5.9	6
7009	0.41	2.6	0.7	1.65	0.6	20.7	< .05	0.21	0.07	5.2	0.004	0.17	0.06	0.6	38	< .2	4.07	0.35	63.1	2.9	15	6	6.8
7010	0.36	3.3	0.8	2.84	0.8	28.9	< .05	0.36	0.09	6.6	0.007	0.22	0.09	1	39	< .2	6.17	0.61	57.6	5	15	6.2	9.3
7011	0.35	1.6	0.5	1.39	0.7	15.4	< .05	0.15	0.07	3	0.005	0.14	0.03	0.3	35	< .2	2.5	0.21	46.5	1.4	15	5.4	6.3
7013	0.36	3	0.7	2.71	0.9	27.4	< .05	0.35	0.05	5.9	0.005	0.22	0.09	0.9	39	< .2	5.64	0.61	50.3	4.5	15	5.8	8.1
7014	0.36	2.9	0.7	2.26	0.8	23.4	< .05	0.28	0.06	5.6	0.005	0.19	0.08	0.8	39	< .2	5.59	0.48	65.6	3.1	15	5.6	6.4
7015	0.31	1.5	0.4	2.7	0.5	16.3	< .05	0.3	0.04	5.2	0.014	0.14	0.07	0.8	26	< .2	5.13	0.52	45.1	1.8	15	6.9	8.7
7016	0.32	1.6	0.3	2.44	0.4	16.2	< .05	0.32	0.09	5	0.013	0.15	0.08	0.8	26	< .2	5.16	0.5	44.1	1.7	15	6.9	8.8
7016	0.32	1.5	0.4	2.73	0.5	16	< .05	0.3	0.04	5	0.013	0.15	0.08	0.8	26	< .2	5.11	0.44	46	1.7	15	7	8.5
7017	0.25	1.7	0.5	1.93	0.6	15.5	< .05	0.2	0.07	4	0.008	0.16	0.05	0.5	28	< .2	3.56	0.38	48.5	2.2	15	6.2	7.8
7018	0.34	2.4	0.6	1.85	0.7	22.1	< .05	0.22	0.07	4.7	0.006	0.17	0.05	0.6	36	< .2	3.87	0.36	53.1	3.1	15	5.7	5.7
7019	0.35	2.9	0.7	2.54	0.7	23.7	< .05	0.31	0.07	5.6	0.006	0.19	0.09	0.7	34	< .2	5.8	0.58	53.6	4.6	15	6	7.6
7020	0.23	1.9	0.6	1.71	0.6	19.4	< .05	0.19	0.05	3.5	0.008	0.13	0.05	0.4	30	< .2	3.05	0.3	64.1	1.7	15	6.1	7.1

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
7021	0.23	1.8	0.5	1.57	0.5	15.5	< .05	0.17	0.02	4.1	0.005	0.13	0.04	0.4	30	< .2	3.05	0.32	48.4	2.3	15	6.4	6.3
7022	0.32	3.8	0.5	2.38	0.9	22.9	< .05	0.29	0.04	6	0.009	0.17	0.07	0.7	40	< .2	6.24	0.54	62.4	7.5	15	6.4	6.9
7023	0.32	2.7	0.5	1.76	0.7	21.1	< .05	0.22	0.06	5.1	0.003	0.14	0.06	0.6	36	< .2	4.61	0.34	65	3.1	15	5.9	5.8
7025	0.3	2.8	0.5	2.19	0.7	20.5	< .05	0.25	0.05	5.6	0.006	0.19	0.08	0.6	36	< .2	4.88	0.44	62.5	4	15	5.8	6.9
7026	0.28	1.9	0.4	1.79	0.5	16.9	< .05	0.19	0.02	4.1	0.007	0.15	0.06	0.5	29	< .2	3.82	0.43	54.6	2.2	15	6.3	6.7
7027	0.18	1.8	0.3	2.27	0.5	13.9	< .05	0.2	0.04	4.5	0.01	0.12	0.04	0.5	26	< .2	4.1	0.38	56.1	2.9	15	6.4	5.5
7028	0.26	3	0.4	2.48	0.7	20.1	< .05	0.32	0.07	6.6	0.006	0.18	0.09	0.7	35	< .2	6.54	0.64	65.4	5.6	15	6.3	6.2
7028	0.28	2.9	0.4	2.78	0.6	18.7	< .05	0.33	0.08	5.9	0.007	0.17	0.09	0.7	32	< .2	6.4	0.66	63.8	5.5	15	6.3	6.4
7029	0.28	2.3	0.5	1.97	0.9	18.8	< .05	0.22	0.08	5.1	0.006	0.17	0.06	0.6	32	< .2	4.03	0.44	57.7	4	15	6.3	6.5
7030	0.32	3	0.5	3.65	0.7	29.4	< .05	0.51	0.03	5.4	0.004	0.16	0.15	0.6	31	< .2	11.59	0.98	63.5	3.1	15	8.7	20.2
7031	0.16	1.7	0.5	2.76	0.5	19.9	< .05	0.32	0.06	3.5	0.006	0.1	0.08	0.7	23	< .2	6.35	0.53	43.2	1	15	7.4	9
7032	0.18	2.8	0.3	3.13	0.8	22.9	< .05	0.4	0.05	4.7	0.006	0.17	0.13	0.6	30	< .2	8.76	0.77	65.7	3.2	15	7.6	10.3
7033	0.15	2.1	0.4	3.4	0.6	20.1	< .05	0.36	0.05	5.3	0.005	0.1	0.09	0.6	25	< .2	7.18	0.58	42.3	1.9	15	7.3	8.8
7034	0.29	2.3	0.5	3.83	0.6	18.9	< .05	0.46	0.07	4.4	0.006	0.16	0.13	0.5	25	< .2	11.57	0.89	46.2	2.7	15	8.9	30.1
7035	0.38	4.4	0.6	2.83	0.8	25.7	< .05	0.38	0.06	7.7	0.005	0.19	0.12	1	42	< .2	8.19	0.8	71.3	8.3	15	6.4	6.6
7037	0.28	1.7	0.4	2.61	0.4	14.6	< .05	0.25	0.05	5.6	0.017	0.12	0.06	0.6	27	< .2	4.71	0.44	51.4	2.3	15	6.7	6.2
7038	0.31	2.9	0.5	2.28	0.7	21.4	< .05	0.26	0.06	5.5	0.007	0.18	0.07	0.6	35	< .2	5.4	0.56	64.2	3.9	15	6.9	7.9
7039	0.32	3	0.5	2.33	0.8	22.2	< .05	0.27	0.06	6	0.006	0.19	0.07	0.8	37	< .2	5.07	0.45	64.7	4.6	15	6	7.1
7040	0.34	3.1	0.4	2.3	0.6	22.7	< .05	0.27	0.08	6	0.005	0.19	0.08	0.9	36	< .2	5.61	0.51	65.5	4.9	15	5.9	6.5
7040	0.36	3.4	0.5	2.58	0.9	23.7	< .05	0.29	0.03	6.2	0.005	0.2	0.08	0.9	39	< .2	5.72	0.65	67.3	5.1	15	6	6.6
7041	0.15	2.5	0.3	4.36	1.5	25.2	< .05	0.5	0.03	5.3	0.006	0.18	0.14	0.9	28	< .2	12.79	1	47.9	2.9	15	6.2	8.1
7042	0.25	2.1	0.3	3.43	0.5	57.6	< .05	0.4	0.04	3.9	0.004	0.12	0.12	0.8	23	< .2	10.16	0.85	41.8	3.4	15	9.4	38.9
7043	0.16	2.2	0.2	1.94	0.6	18	< .05	0.21	0.05	4.6	0.005	0.17	0.05	0.7	28	< .2	3.66	0.35	53.5	2.2	15	6.3	7.2
7044	0.21	2.8	0.3	2.52	0.8	19.6	< .05	0.3	0.02	5.6	0.006	0.15	0.08	0.7	32	< .2	5.6	0.5	64.2	3.4	15	6.4	8.1
7045	0.34	3.9	0.4	4.93	1	43.3	< .05	0.64	0.08	6.9	0.007	0.23	0.22	0.5	50	< .2	17.47	1.49	57	9.2	15	7.7	19.7
7046	0.25	3	0.6	3.31	0.8	30.5	< .05	0.41	0.06	5.8	0.005	0.14	0.12	0.6	40	< .2	9.2	0.84	47.3	7.9	15	7.9	17.9
7047	0.39	3.3	0.3	3.62	0.7	34.1	< .05	0.43	0.06	6.5	0.005	0.18	0.13	0.5	45	< .2	9.95	0.92	54.3	7.5	15	8.2	10.1
7049	0.19	2.8	0.6	2.43	0.7	28.9	< .05	0.3	0.06	5.3	0.005	0.21	0.1	0.6	40	< .2	5.5	0.58	62	5.2	15	7.5	11
7050	0.35	3.3	0.3	4.35	0.7	37.5	< .05	0.53	0.06	6.3	0.006	0.16	0.17	0.7	41	< .2	13.55	1.18	60.2	8.8	15	8.1	9.9
7051	0.41	2.2	1.1	1.8	0.6	25.2	< .05	0.19	0.08	4.5	0.004	0.15	0.05	1.7	39	< .2	3.43	0.35	58.3	4.1	15	5.5	6.2
7052	0.48	2.3	1.4	1.55	0.7	26.4	< .05	0.22	0.1	5	0.005	0.16	0.06	1.7	38	< .2	3.71	0.4	61.4	4.4	15	5.4	6.5
7052	0.45	2.2	1.3	1.69	0.8	25.2	< .05	0.2	0.05	4.8	0.004	0.16	0.06	1.7	36	< .2	3.64	0.38	59.6	4.4	15	5.4	6.6
7053	0.27	2.3	0.4	2.38	0.6	31.9	< .05	0.37	0.05	5	0.006	0.21	0.09	0.6	37	< .2	6.51	0.56	39.7	6.1	15	8.1	11.5
7054	0.39	4.5	0.4	3.65	1	41.7	< .05	0.53	0.06	7.3	0.004	0.17	0.16	0.6	53	< .2	10	1.02	53.3	10.2	15	8	9.8
7055	0.27	1.6	0.5	1.48	0.4	16.6	< .05	0.16	0.04	3.8	0.008	0.14	0.04	0.4	29	< .2	2.83	0.28	45.1	2.5	15	6.7	4.8
7056	0.37	1.6	1	1.34	0.4	13.7	< .05	0.15	0.06	4.1	0.003	0.16	0.05	0.5	29	< .2	2.82	0.29	55	3	15	5.5	4

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
7057	0.45	2.1	2.7	1.61	0.6	22.7	< .05	0.22	0.07	4.7	0.004	0.18	0.06	0.8	38	< .2	3.99	0.4	60	3.3	15	6	5.3
7058	0.35	2	0.6	1.52	0.6	20.6	< .05	0.21	0.07	4.4	0.006	0.16	0.05	0.7	33	< .2	3.61	0.34	50.8	2.8	15	5.9	4.5
7059	0.23	2.8	0.6	1.62	0.7	37.4	< .05	0.16	0.04	6.2	0.004	0.14	0.03	2.5	41	< .2	2.73	0.27	38.9	5.9	15	6	6.8
7061	0.3	2.6	0.6	1.61	0.7	22.9	< .05	0.18	0.05	5.3	0.005	0.14	0.05	0.6	38	< .2	3.46	0.33	52.7	3.8	15	5.6	5.2
7062	0.16	2.6	0.4	2.8	0.6	28.1	< .05	0.37	0.05	5.4	0.008	0.15	0.1	0.7	34	< .2	6.73	0.69	45.2	5.9	15	7.5	7.3
7063	0.18	3	0.3	2.88	0.8	35.9	< .05	0.41	0.1	5.7	0.004	0.13	0.11	1.2	31	< .2	6.88	0.58	35.2	7.5	15	8.2	10.6
7064	0.13	2.4	0.1	2.72	0.6	28.7	< .05	0.35	0.02	5.3	0.005	0.11	0.09	0.9	26	< .2	6.34	0.64	29.1	5.6	15	8.3	9.5
7064	0.15	2.6	0.3	2.73	0.7	29.3	< .05	0.37	0.04	5.5	0.005	0.12	0.1	1	26	< .2	6.44	0.65	29.8	5.8	15	8.3	9
7065	0.1	1.5	0.2	2.24	0.5	14.6	< .05	0.26	0.05	4.3	0.012	0.09	0.06	0.8	22	< .2	4.2	0.31	29.2	3.7	15	6.4	4.9
7066	0.27	3.4	0.6	2.07	0.9	30.6	< .05	0.27	0.04	6.6	0.005	0.18	0.06	0.8	46	< .2	4.01	0.42	54.5	7.3	15	5.7	6.3
7067	0.23	2.7	0.4	2.24	0.7	24.9	< .05	0.27	0.04	5.8	0.005	0.15	0.06	0.7	36	< .2	4.85	0.4	38.8	4.6	15	5.7	5.1
7068	0.27	3.6	0.5	2.53	1.1	31	< .05	0.35	0.07	7	0.005	0.22	0.08	1.9	44	< .2	6.34	0.39	43.1	6.5	15	5.7	6.2
7069	0.5	2.9	0.2	1.55	0.7	73.3	< .05	0.22	0.04	3.1	0.004	0.17	0.06	0.6	36	< .2	5.77	0.39	71.9	3.5	15	4.5	8.2
7070	0.33	3.6	0.2	1.9	0.8	88.5	< .05	0.29	0.04	4.4	0.002	0.18	0.14	0.6	27	< .2	9.33	0.82	27.5	4.4	15	4.1	8.5
7071	0.41	2.7	0.3	1.39	0.7	62.4	< .05	0.19	0.04	3.1	0.003	0.19	0.07	0.6	32	< .2	5.41	0.39	46.5	3.1	15	4.3	8.8
7072	0.24	2.2	0.2	0.83	0.9	80.3	< .05	0.08	0.07	2	0.002	0.11	0.02	0.3	28	< .2	1.99	0.13	29.4	2.2	15	4.5	10.4
7073	0.32	3	0.2	1.38	0.7	81.7	< .05	0.17	0.04	2.9	0.002	0.17	0.07	0.5	31	< .2	5.49	0.39	38.5	2.8	15	4.7	8.8
7074	0.52	4.5	0.5	2.52	0.8	47.6	< .05	0.35	0.07	6.9	0.008	0.19	0.13	0.9	44	< .2	7.99	0.69	72.1	5.9	15	5.1	7.6
7075	0.44	3.9	0.4	2.17	0.7	45.7	< .05	0.26	0.06	6	0.007	0.18	0.08	0.8	45	< .2	5.5	0.58	71.9	5.6	15	5	7.4
7076	0.36	2.6	0.3	1.81	0.6	32.6	< .05	0.18	0.04	4.5	0.009	0.14	0.06	0.5	39	< .2	3.57	0.34	56.3	3.1	15	5	7.2
7077	0.49	3.9	0.4	2.02	0.8	38.9	< .05	0.22	0.06	5.8	0.008	0.16	0.09	0.7	49	< .2	4.75	0.55	63.6	5.1	15	4.6	7.2
7078	0.36	3.5	0.3	2.07	0.6	30.7	< .05	0.27	0.05	5.4	0.007	0.15	0.09	0.6	39	< .2	6.15	0.51	54.9	4.7	15	4.7	5
7079	0.4	3.7	0.3	2.34	0.6	34.4	< .05	0.3	0.04	5.8	0.008	0.15	0.09	0.6	42	< .2	6.8	0.59	58	5.3	15	4.6	4.9
7080	0.41	3.7	0.3	2.39	0.7	33.9	< .05	0.29	0.04	5.9	0.008	0.16	0.09	0.6	42	< .2	6.74	0.57	58.5	5.3	15	4.7	5.2
7082	0.11	6.2	0.2	1.08	1.1	46.3	< .05	0.14	0.03	4.4	0.113	0.13	0.04	0.7	55	0.2	2.85	0.25	59.4	19.4	15	5.3	8.8
7083	0.04	7.2	0.3	1.76	0.8	73.6	< .05	0.2	< .02	2.7	0.154	0.09	0.06	0.5	57	0.4	3.89	0.38	52.5	24.3	15	5.9	12.1
7084	0.03	7	0.2	2.41	1	57	< .05	0.24	< .02	3.1	0.16	0.1	0.07	0.7	57	0.2	4.19	0.42	52.2	22	15	5.9	13.4
7085	0.13	5.4	0.3	2.07	0.7	63.3	< .05	0.19	< .02	4	0.079	0.14	0.05	0.7	56	0.2	3.95	0.33	50.8	15.1	15	5.7	10.6
7086	0.29	6	0.5	3.08	0.9	128.2	< .05	0.33	0.02	3.5	0.105	0.12	0.11	1.5	68	0.2	8.25	0.73	59.2	21.1	15	7	10.1
7087	0.6	3.7	0.4	4.51	0.9	62.1	< .05	0.62	0.04	5.9	0.007	0.22	0.22	2.1	115	< .2	16.82	1.4	57.4	7.1	15	6.1	9.4
7088	0.43	3.1	0.4	1.42	0.9	35.9	< .05	0.17	0.05	5.3	0.006	0.19	0.05	0.7	49	< .2	4.6	0.33	65.5	4.1	15	4.4	7
7089	0.24	2.4	0.1	1.7	0.5	30.7	< .05	0.15	0.03	3.8	0.02	0.13	0.05	0.6	42	< .2	3.63	0.31	46.2	3.1	15	4.8	7.2
7090	0.23	5.6	0.2	2.1	1	58.7	< .05	0.25	0.03	5.8	0.039	0.16	0.08	0.9	73	< .2	5.5	0.49	62.5	16.5	15	5.5	7.9
7091	0.07	6.8	0.2	5.67	0.7	111.2	< .05	0.49	< .02	9.5	0.074	0.16	0.17	0.6	56	< .2	12.33	0.97	50.8	23.1	7.5	6.4	11.6
7092	0.05	7	0.1	4.09	1	71	< .05	0.38	< .02	6.8	0.084	0.17	0.12	0.7	56	< .2	9.64	0.73	62.1	27.8	15	6.5	9.5
7093	0.05	6.9	0.1	4.06	0.9	63.1	< .05	0.36	< .02	6.8	0.082	0.15	0.12	0.7	58	< .2	9.36	0.72	60.8	26.6	7.5	6.5	8.9

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
7094	0.05	6.9	0.1	3.89	0.9	62.9	< .05	0.37	< .02	6.7	0.08	0.15	0.12	0.7	54	< .2	9.35	0.72	61.7	27.5	7.5	6.5	9
7096	0.05	7.2	0.2	5.79	0.9	45.6	< .05	0.53	< .02	9.3	0.084	0.16	0.15	0.9	56	< .2	11.12	0.96	57.9	28.4	15	6.8	9.9
7097	0.05	7.1	0.2	5.72	0.9	71.7	< .05	0.47	< .02	8.5	0.085	0.13	0.12	1.6	57	< .2	9.33	0.72	49.2	27.7	15	6.9	12.3
7098	0.18	5.2	0.2	4.92	0.7	157.5	< .05	0.49	0.04	6.8	0.065	0.13	0.14	0.6	58	< .2	10.38	0.83	48.1	18.3	15	7.3	11.8
7099	0.11	6.1	0.2	4.22	0.9	50	< .05	0.39	< .02	6.6	0.068	0.16	0.1	0.8	54	< .2	7.8	0.61	53.5	17.4	15	6	10.3
7100	0.17	4.6	0.2	3.2	0.7	45.8	< .05	0.32	< .02	6.2	0.045	0.12	0.08	0.9	49	< .2	6.79	0.5	57.2	12.1	15	5.6	8.5
7101	0.18	4.4	0.2	3.11	0.7	33.5	< .05	0.35	0.03	6.5	0.012	0.14	0.11	1.4	49	< .2	7.94	0.66	47.1	8.7	15	5.1	7.3
7102	0.45	5	0.5	2.03	0.6	58.6	< .05	0.24	0.04	4.6	0.006	0.11	0.08	1.9	43	< .2	6.05	0.45	43.5	6.6	15	4.9	8.9
7103	0.49	5.7	0.1	5.53	0.8	357.9	< .05	0.63	0.08	5.9	0.027	0.15	0.2	1.2	55	< .2	13.74	1.35	54.3	12.7	15	5.3	5.8
7104	0.05	8.9	0.1	1.3	1	69.1	< .05	0.15	0.03	4.6	0.125	0.13	0.05	0.8	64	< .2	2.8	0.33	48.8	33.2	15	5.8	9.6
7105	0.54	4.5	0.6	2.51	0.9	52.5	< .05	0.32	0.06	6.6	0.01	0.14	0.09	1.2	55	< .2	8.25	0.49	64.2	9.1	15	5.1	8.6
7106	0.54	3.7	0.2	1.47	0.7	30.6	< .05	0.19	0.05	5.8	0.007	0.12	0.05	0.8	34	< .2	4.91	0.27	30.3	5.1	15	4.4	6.4
7107	0.53	3.9	0.1	1.61	0.7	30.7	< .05	0.19	0.07	5.4	0.007	0.12	0.06	0.8	36	< .2	5.05	0.33	34.1	5.4	15	4.5	6.5
7108	0.52	4.1	0.1	1.52	0.7	32.7	< .05	0.19	0.05	5.6	0.006	0.12	0.06	0.8	40	< .2	5.23	0.32	33.8	5.9	15	4.5	6.2
7110	0.06	8.3	0.2	1.53	1.1	62.9	< .05	0.14	0.02	3.6	0.143	0.1	0.04	0.6	55	0.2	2.75	0.32	55.5	19.8	15	5.4	12.5
7111	0.1	7.6	0.2	2.65	1	51.6	< .05	0.26	0.04	4.1	0.11	0.14	0.07	0.7	56	< .2	4.84	0.44	52.7	22.3	15	5.6	12.9
7112	0.3	4.9	0.3	1.65	0.7	42.8	< .05	0.18	0.05	4.7	0.039	0.15	0.05	0.7	61	< .2	4.32	0.28	53.5	13.7	15	5.4	7.6
7113	0.06	8.7	0.2	2.67	0.9	71.1	< .05	0.3	0.02	3.4	0.146	0.11	0.08	0.6	64	0.2	4.89	0.48	50.3	31.5	15	5.8	11.1
7114	0.08	8.6	0.3	2.97	0.9	119.3	< .05	0.3	0.03	3.6	0.134	0.13	0.08	1.3	64	0.2	5.26	0.53	45.8	33	15	6.3	10.7
7115	0.07	7.8	0.3	2.13	1	71.4	< .05	0.19	0.02	4.2	0.119	0.1	0.05	1	57	< .2	3.46	0.34	51.3	19	15	6.2	13.7
7116	0.14	7.5	0.4	4.21	0.9	116	< .05	0.35	0.04	6.4	0.089	0.13	0.09	2	85	< .2	6.55	0.59	61.8	21.1	15	6.7	12.4
7117	0.37	4.3	0.4	4.27	0.6	28	< .05	0.52	0.05	5.8	0.012	0.15	0.19	0.6	45	< .2	12.03	1.12	50.8	6.4	15	5.9	7.3
7118	0.41	5.7	0.4	3.32	0.6	51.9	< .05	0.43	0.06	4	0.011	0.14	0.18	0.8	52	< .2	11.6	1.16	54.9	5.1	15	5.3	5.6
7119	0.44	4.9	0.3	2.48	0.8	52.4	< .05	0.29	0.03	4.1	0.013	0.09	0.1	0.8	52	< .2	8.5	0.57	53.8	5	15	5.2	4.3
7120	0.39	5.1	0.5	2	0.8	56.5	< .05	0.23	0.06	4.5	0.01	0.16	0.08	0.8	53	< .2	5.78	0.53	58.1	4.5	15	4.9	6.3
7121	0.32	4.9	0.4	1.93	0.9	56	< .05	0.23	0.02	4.6	0.008	0.15	0.07	0.8	52	< .2	5.79	0.51	57.1	4.2	7.5	4.9	6.4
7122	0.35	4.9	0.6	1.95	0.9	54	< .05	0.21	0.04	4.4	0.008	0.15	0.08	0.8	51	< .2	5.61	0.5	55.8	4.1	7.5	4.9	6.3
7124	0.29	5.2	0.5	4.62	0.5	46.9	< .05	0.65	0.04	3.8	0.007	0.11	0.26	1.2	32	< .2	16.23	1.5	41.5	3.9	15	6.1	10.2
7125	0.57	6.8	0.6	3.31	0.9	69.7	< .05	0.4	0.05	5.4	0.008	0.17	0.15	1.1	61	< .2	8.66	0.93	62.7	5.7	15	5.6	9.5
7126	0.53	5.1	0.1	3.13	0.6	91.9	< .05	0.36	0.05	4	0.013	0.09	0.13	0.5	58	< .2	8.73	0.91	65.8	6.2	15	8.2	40.3
7127	0.22	4	0.2	3.02	0.5	37.3	< .05	0.34	0.04	4.5	0.014	0.14	0.13	1.5	37	< .2	8.5	0.77	56.8	4.1	15	6.7	8.6
7128	0.29	4.9	0.3	4.09	0.8	82.6	< .05	0.51	0.03	3.7	0.008	0.1	0.19	1.4	43	< .2	13.11	1.24	58.6	6.5	15	6.2	10.4
7129	0.44	5.5	0.5	3.92	0.7	93.3	< .05	0.49	0.06	3.9	0.012	0.15	0.2	1	47	< .2	12.7	1.35	79	7.1	15	6	10.3
7130	0.33	5	0.3	3.24	0.7	88.5	< .05	0.41	0.03	3.6	0.012	0.09	0.16	0.8	46	< .2	11.05	0.99	73.9	7.5	15	6.5	6.9
7131	0.24	4.5	0.3	2.59	0.8	83.3	< .05	0.28	0.03	3.8	0.012	0.1	0.12	0.6	42	< .2	7.13	0.64	67.5	6.9	15	7.7	14.3
7132	0.25	3.8	0.6	3.31	0.6	137.3	< .05	0.4	0.04	2.8	0.01	0.09	0.14	0.6	41	< .2	10.73	0.99	62.9	4.4	15	7.1	10.1

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
7133	0.25	4	0.3	4.02	0.5	54.9	< .05	0.46	0.05	5.8	0.014	0.13	0.16	0.6	38	< .2	10.43	0.87	78.1	5.3	15	7.3	9.7
7134	0.48	5.1	0.5	3.7	0.7	73.8	< .05	0.45	0.05	4	0.012	0.13	0.19	0.7	45	< .2	12.49	1.05	89.7	7.1	15	7.6	23.4
7135	0.45	4.5	0.4	3.5	0.5	71.4	< .05	0.45	0.06	4	0.009	0.13	0.2	0.7	38	< .2	12.76	1.15	84.5	6.1	15	6.7	11
7136	0.47	4.5	0.4	3.7	0.6	72.9	< .05	0.45	0.02	4	0.009	0.13	0.19	0.8	39	< .2	12.96	1.23	84.7	6.1	15	6.9	11
7138	0.19	3.9	0.4	3.45	0.6	91.6	< .05	0.42	0.02	3.6	0.007	0.17	0.18	0.7	32	< .2	11.29	1.1	93.6	6.2	15	7.4	16.1
7139	0.34	3.5	0.4	3.33	0.6	97.7	< .05	0.43	0.02	3.9	0.005	0.14	0.19	1.2	36	< .2	12.38	1.15	88.4	6.2	15	7.4	16.5
7140	0.25	3.9	0.3	3.56	0.6	71.5	< .05	0.44	0.03	3.5	0.008	0.11	0.17	1	36	< .2	10.73	1.02	56.1	4.4	15	6.5	9.6
7141	0.31	3.8	0.2	3.28	0.7	55.8	< .05	0.38	0.03	3.9	0.008	0.12	0.15	0.8	34	< .2	9.51	0.83	56.1	4.4	15	6.3	9.4
7142	0.44	2.8	0.6	3.54	0.7	21.7	< .05	0.38	0.04	7.7	0.008	0.17	0.13	1.7	31	< .2	8.31	0.71	40.1	8.4	15	5.1	7.8
7143	0.56	3.6	0.7	3.3	1	37.7	< .05	0.37	0.08	8.9	0.006	0.21	0.13	1.4	38	< .2	9.54	0.71	54.2	8.8	15	4.7	8.8
7144	0.3	1.6	1	1.89	0.3	298.8	< .05	0.25	0.07	2.1	0.004	0.1	0.1	0.7	17	< .2	7.21	0.58	26.8	4.6	15	7.8	77.8
7145	0.34	3.2	0.2	4.81	0.7	50.8	< .05	0.54	0.06	7.6	0.009	0.14	0.22	0.6	32	< .2	14.73	1.33	57.3	7.7	15	7.9	25.5
7146	0.23	2	0.3	2.21	0.5	14.9	< .05	0.23	0.04	5.7	0.009	0.11	0.07	0.7	27	< .2	5.64	0.41	33.4	4.2	15	4.8	5.9
7147	0.3	2.3	0.4	2.44	20	17.3	< .05	0.25	0.05	5.8	0.01	0.14	0.07	0.8	31	< .2	6.49	0.42	42.4	3.5	15	4.8	6.7
7148	0.29	2.2	0.5	2.11	3.6	19.1	< .05	0.24	0.03	6.4	0.006	0.15	0.08	0.7	30	< .2	6.06	0.35	42.7	4.9	15	4.6	8
7149	0.24	1.8	0.4	2.15	0.9	18.4	< .05	0.19	0.04	5.6	0.008	0.13	0.05	0.6	30	< .2	5.05	0.32	38.9	3.9	15	4.6	7.5
7150	0.26	1.9	0.5	2.11	0.9	18.6	< .05	0.21	0.03	5.9	0.008	0.14	0.06	0.7	29	< .2	5.17	0.32	40.7	4	15	4.6	6.8
7152	0.34	2.6	0.6	2.47	2.2	21.7	< .05	0.28	0.05	7.9	0.006	0.15	0.08	1.1	33	< .2	7.47	0.45	41.5	8.1	15	4.6	4.7
7153	0.36	3.7	0.5	6.1	0.8	34.1	< .05	0.7	0.05	7.8	0.012	0.17	0.25	1.5	38	< .2	17.1	1.6	48.5	7.8	15	5.5	5.9
7154	0.41	2.5	1.3	3.62	1	23.8	< .05	0.43	0.04	7.3	0.008	0.15	0.14	3	30	< .2	10.65	0.76	41.9	6.4	15	5	4.3
7155	0.36	2.9	0.5	4.8	0.8	41.3	< .05	0.59	0.04	7	0.011	0.19	0.24	3.6	30	< .2	16.45	1.33	88.8	8.7	15	5.9	13.3
7156	0.39	2.2	0.9	2.18	1.2	43.3	< .05	0.28	0.06	5.2	0.004	0.21	0.09	1.7	31	< .2	8.35	0.5	57.7	3.6	15	4.9	7.4
7157	0.32	1.7	0.7	2.19	0.7	31	< .05	0.27	0.04	5.1	0.006	0.22	0.09	1	29	< .2	7.48	0.44	44.2	3.7	15	5.1	8
7158	0.23	1.7	0.6	2.86	0.9	31.3	< .05	0.33	0.05	5.3	0.006	0.17	0.1	1.5	25	< .2	9.28	0.57	41.4	2.5	15	5.1	7.2
7159	0.36	2.6	0.8	3.41	0.9	31.8	< .05	0.42	0.04	7.4	0.006	0.18	0.15	2	34	< .2	11.36	0.83	46.4	7.1	15	4.8	6.8
7160	0.33	1.8	0.5	3.26	0.6	15.7	< .05	0.4	0.03	6.1	0.007	0.12	0.13	1.3	23	< .2	10.8	0.64	32.2	6.8	15	4.8	4.3
7161	0.21	1.7	0.4	2.23	0.6	15.3	< .05	0.22	< .02	5.2	0.01	0.1	0.06	0.7	26	< .2	4.98	0.38	36.6	5.1	15	4.8	4.8
7162	0.17	1.8	0.3	2.12	0.6	16.6	< .05	0.21	0.02	5	0.011	0.1	0.06	0.7	28	< .2	4.66	0.33	30.8	4	15	5	4.7
7163	0.2	1.8	0.3	2.34	0.7	18.1	< .05	0.21	< .02	5.3	0.011	0.11	0.06	0.7	28	< .2	5.05	0.38	33.6	4.8	15	4.9	5.1
7164	0.18	1.7	0.4	2.01	0.6	16.5	< .05	0.22	0.02	4.9	0.01	0.1	0.06	0.7	26	< .2	4.7	0.36	32	4.4	15	4.9	5.1
7166	0.3	1.9	0.5	2.52	0.6	15.6	< .05	0.28	0.05	6.7	0.01	0.14	0.08	0.8	29	< .2	7.09	0.41	38.6	6.9	15	4.9	4.9
7167	0.55	3.4	0.7	3.42	1.2	33.1	< .05	0.42	0.06	8.2	0.004	0.18	0.16	1.9	34	< .2	11.21	0.83	60.3	7.7	15	4.6	7.1
7168	0.13	1.1	0.2	2.13	0.3	13	< .05	0.2	0.04	4	0.013	0.1	0.06	0.4	19	< .2	3.81	0.34	20.4	2	15	4.9	4.3
7169	0.13	1.4	0.2	2.99	0.4	14.5	< .05	0.33	0.02	5.5	0.014	0.09	0.08	0.9	21	< .2	6.77	0.53	30.9	4.4	15	4.8	4.1
7170	0.21	1.6	0.2	2.36	0.5	11.8	< .05	0.21	< .02	6	0.009	0.09	0.05	0.6	27	< .2	4.32	0.31	34.9	5.8	15	4.4	5.3
7171	1.23	3.3	1.3	5.11	0.9	36.4	< .05	0.65	0.07	6.6	0.005	0.28	0.24	2.1	68	< .2	15.71	1.54	72.2	6.6	15	5.3	19.6

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
7172	0.2	1.6	0.4	2.25	0.7	30.8	< .05	0.25	0.02	4.9	0.007	0.11	0.08	0.5	25	< .2	6.72	0.47	36.1	2.5	15	4.4	7.1
7173	0.09	0.8	0.2	2.66	0.3	10.2	< .05	0.21	< .02	4.7	0.017	0.07	0.05	0.6	16	< .2	4.06	0.36	27.7	1.7	15	4.6	3.6
7174	0.41	1.6	0.5	2.33	0.7	19.6	< .05	0.27	0.06	5	0.006	0.12	0.07	0.8	31	< .2	6.31	0.46	44.6	2.4	15	4.4	7
7175	0.35	2.8	0.6	3.88	0.9	26.3	< .05	0.45	0.06	7.5	0.006	0.14	0.14	1.9	34	< .2	11.04	0.81	41.2	5.9	15	4.6	8.1
7176	0.44	3.4	0.7	4.04	1	29.3	< .05	0.47	0.04	7.9	0.006	0.18	0.16	1.6	42	< .2	11.47	0.96	52.8	7.4	15	4.5	7.9
7177	0.43	3.2	0.6	4.1	0.8	27.9	< .05	0.45	0.05	8.1	0.007	0.18	0.15	1.6	38	< .2	10.99	0.91	50.3	8.2	15	4.5	7.5
7178	0.43	3.1	0.5	4	0.8	26.4	< .05	0.44	0.07	7.7	0.005	0.17	0.14	1.5	36	< .2	10.7	0.87	47.6	8	15	4.5	7.5
7180	0.21	2.6	0.4	3.1	0.7	22.8	< .05	0.35	0.03	7.2	0.013	0.11	0.09	1.1	35	< .2	7.6	0.54	39.1	7.7	15	4.8	6.9
7181	0.23	3.9	1.1	3.68	0.7	40.1	< .05	0.47	0.06	6.9	0.008	0.17	0.14	4	40	< .2	8.91	0.85	60.3	6.2	15	6.3	9
7182	0.24	2.8	1.3	3.57	0.5	30.2	< .05	0.42	0.04	5.3	0.007	0.15	0.12	3.2	36	< .2	7.87	0.72	56.8	2.7	15	6.4	7
7183	0.45	2.6	0.3	3.64	0.6	46.4	< .05	0.5	0.05	5.4	0.009	0.17	0.14	1	31	< .2	11.63	1.08	56.6	5.5	15	9.7	52.3
7184	0.46	2.6	0.4	3.81	0.7	38.5	< .05	0.5	0.05	5.3	0.009	0.18	0.15	1.1	31	< .2	11.95	1.07	58.4	5.5	15	9.2	46.3
7184	0.45	2.5	0.3	3.89	0.5	38.3	< .05	0.49	0.04	5.3	0.01	0.18	0.15	1.1	29	< .2	11.71	1.03	58.5	5.6	15	9.2	44.8
7185	0.37	3.6	0.5	4.99	0.6	41.6	< .05	0.68	0.04	6.2	0.008	0.17	0.21	0.7	38	< .2	16.39	1.52	64.6	6.1	15	9	25.6
7186	0.46	3.9	0.9	4.43	0.9	29.8	< .05	0.61	0.08	8.1	0.008	0.21	0.16	1.2	39	< .2	11.87	1.02	71	7.2	15	6.5	9.5
7187	0.13	1.8	0.5	1.8	0.5	32.7	< .05	0.21	0.04	3.7	0.01	0.11	0.04	0.9	26	< .2	3.26	0.3	54.7	2.9	15	6.9	8.2
7188	0.56	3.3	0.9	2.48	0.7	22.9	< .05	0.36	0.06	7.3	0.007	0.21	0.09	1.4	36	< .2	6.64	0.71	73	5.9	15	6.7	9.6
7189	0.57	3.4	0.5	5.29	0.7	43.4	< .05	0.72	0.06	7.3	0.006	0.18	0.25	1.2	35	< .2	20.96	1.6	73.6	8.2	15	7.4	9.5
7194	0.03	0.8	0.1	2.42	0.5	12.3	< .05	0.2	< .02	3.4	0.012	0.08	0.05	0.6	13	< .2	3.83	0.34	30.5	0.4	15	4.7	5.1
7195	0.19	1	0.3	2.47	0.4	16.3	< .05	0.21	0.02	5.1	0.008	0.07	0.07	0.6	20	< .2	4.25	0.37	27.6	1.9	15	4.8	6.3
7196	0.3	2.6	0.4	4.38	0.8	28.8	< .05	0.48	< .02	6.6	0.011	0.14	0.17	1.7	32	< .2	11.92	1.07	42.5	6.5	15	6	9.3
7197	0.33	3.6	0.5	5.15	1	39.9	< .05	0.59	0.02	8.7	0.007	0.17	0.21	4.6	37	< .2	13.38	1.32	49.4	11.6	15	5.6	11.8
7198	0.31	2	0.3	2.48	0.6	18.1	< .05	0.28	0.04	7.8	0.009	0.12	0.07	0.9	30	< .2	6.16	0.46	37.2	7.8	15	4.8	4.5
7199	0.37	2.8	0.3	5.02	0.7	34.5	< .05	0.56	0.04	8.4	0.011	0.13	0.18	1.3	32	< .2	13.77	0.91	43.3	8	15	5.8	9.5
7200	0.35	2.4	0.4	3.6	1	44.8	< .05	0.44	< .02	7	0.015	0.15	0.15	0.8	31	< .2	10	0.88	44.6	7.5	7.5	6.1	12.9
7201	0.41	2.9	0.5	3.86	0.8	41	< .05	0.49	0.03	8	0.006	0.15	0.15	2.2	34	< .2	11.1	0.91	45.9	8.8	15	5.5	7.2
7202	0.37	3.1	0.4	4.99	0.9	39.9	< .05	0.58	0.02	7.9	0.008	0.16	0.18	2	37	< .2	12.86	1.19	41.8	9.4	15	6	10
7203	0.17	2	0.3	2.74	0.7	26.1	< .05	0.25	0.02	6	0.012	0.13	0.06	1.4	29	< .2	4.78	0.45	34.8	6.3	15	5.6	7.8
7204	0.17	2.3	0.4	2.91	0.7	29	< .05	0.25	0.03	6.2	0.012	0.14	0.06	1.6	31	< .2	5.06	0.41	37.3	6.8	15	5.6	8.5
7205	0.17	2.2	0.4	2.53	0.8	29.7	< .05	0.27	0.04	6.3	0.013	0.14	0.07	1.6	33	< .2	5.27	0.44	36.8	6.9	15	5.6	8.5
7207	0.39	3.2	0.5	5.07	1	44.5	< .05	0.63	0.05	8.4	0.005	0.16	0.22	2	36	< .2	14.2	1.36	51.6	7.9	15	5.4	7.7
7208	0.31	2.5	0.5	3.34	0.9	33.7	< .05	0.37	0.05	7.3	0.007	0.18	0.12	1.7	31	< .2	8.24	0.57	45.3	7.7	15	5.3	9.3
7209	0.34	2	0.5	3.48	0.7	30.5	< .05	0.39	0.06	6.8	0.007	0.17	0.13	1.5	27	< .2	9.33	0.73	38.7	5.6	15	5.1	7
7210	0.26	2.2	0.4	2.71	0.7	20.2	< .05	0.3	0.02	7.1	0.01	0.13	0.09	1	31	< .2	7.14	0.61	40	9.8	15	4.8	4
7211	0.23	1.5	0.3	2.27	0.5	14.7	< .05	0.24	0.02	4.9	0.009	0.08	0.08	0.7	21	< .2	5.55	0.43	28.7	5.6	15	4.9	3.5
7212	0.2	2.3	0.4	3	0.7	21.2	< .05	0.33	0.03	6.3	0.011	0.12	0.09	1.5	28	< .2	7.85	0.52	36.6	7	15	5	5.8

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
7213	0.41	1.2	0.5	1.62	0.5	21.7	< .05	0.15	< .02	4.3	0.005	0.11	0.05	0.5	27	< .2	3.51	0.27	36	4	15	4.6	5.6
7214	0.27	1.8	0.5	2.22	0.6	19.2	< .05	0.23	0.02	6.8	0.01	0.11	0.07	0.8	31	< .2	5.58	0.33	37.9	7.7	15	4.8	4.3
7215	0.27	1.4	0.4	2.73	0.4	17.6	< .05	0.31	0.04	6.1	0.011	0.11	0.1	1.1	22	< .2	7.06	0.57	26	5.2	15	4.8	4.5
7216	0.27	4.2	0.3	2.19	0.5	55.6	< .05	0.24	0.02	4.9	0.006	0.24	0.08	0.5	25	< .2	5.62	0.55	36.9	4.2	15	7.2	10.8
7217	0.42	5.4	0.3	4.76	0.6	71.6	< .05	0.62	0.02	3.7	0.008	0.18	0.27	0.7	40	< .2	17.67	1.59	73.6	6.1	15	8	42
7218	0.46	5.3	0.4	4.56	0.8	70	< .05	0.61	0.05	3.9	0.008	0.19	0.26	0.7	40	< .2	16.71	1.53	76.3	6	15	8.1	46.2
7218	0.43	4.8	0.4	4.5	0.8	65.9	< .05	0.57	0.02	3.7	0.007	0.18	0.24	0.6	38	< .2	15.95	1.43	74.2	5.5	15	8.1	47.3
7221	0.45	3.8	0.3	4.63	0.6	55.1	< .05	0.53	0.05	5.2	0.012	0.14	0.2	0.9	43	< .2	13.19	1.15	58.1	7	15	6.4	10.6
7222	0.52	6.9	0.7	3.93	0.9	74.7	< .05	0.44	0.04	5.2	0.008	0.14	0.17	3.1	67	< .2	10.28	0.98	73.2	6.8	15	5.5	14.4
7223	0.49	6.5	0.5	3.46	0.8	73.6	< .05	0.44	0.02	5	0.006	0.15	0.17	1.7	47	< .2	10.19	1.1	47.3	4.6	15	5.4	8.7
7224	0.2	2.9	0.2	2.84	0.5	28.8	< .05	0.32	0.02	5.4	0.01	0.1	0.08	3.8	31	< .2	6.93	0.49	51.6	2.9	15	5.2	6.5
7225	0.52	6.6	0.5	5.17	0.8	38.9	< .05	0.7	0.05	4.5	0.01	0.11	0.27	0.9	50	< .2	16.84	1.58	61.9	6.1	15	5.7	8.3
7226	0.78	5.4	1	2.83	0.9	61.1	< .05	0.38	0.05	6.1	0.008	0.11	0.15	1.5	67	< .2	9.29	0.94	67.9	7.8	15	5.7	12.4
7227	0.35	4.3	0.3	1.94	0.7	58.1	< .05	0.21	0.04	4.6	0.007	0.14	0.07	1	46	< .2	4.73	0.46	41.2	4	15	4.9	9.3
7228	0.44	4.4	0.3	1.87	0.7	51.1	< .05	0.23	0.04	5	0.01	0.17	0.07	1	48	< .2	5.47	0.48	67.5	5.9	15	4.8	7.8
7229	0.27	4.1	0.2	2.07	0.7	66.1	< .05	0.24	0.05	5.7	0.012	0.13	0.07	0.9	54	< .2	4.99	0.5	69.4	4	7.5	5.6	10.1
7230	0.21	2.8	0.2	2.01	0.5	24.8	< .05	0.25	0.02	5.5	0.01	0.12	0.07	0.8	31	< .2	4.81	0.41	42.3	2.8	15	5.5	5.6
7231	0.35	4.9	0.4	4.29	0.8	54.2	< .05	0.56	0.03	6.7	0.01	0.15	0.18	1.4	43	< .2	12.33	1.14	57.2	7.5	15	5.7	9.3
7232	0.35	4.7	0.3	3.84	0.7	49.4	< .05	0.5	0.05	6.5	0.01	0.16	0.17	1.5	43	< .2	10.71	0.94	56.3	7	15	5.8	9.5
7232	0.36	4.7	0.4	3.83	0.6	51.1	< .05	0.51	0.03	6.5	0.01	0.15	0.17	1.4	42	< .2	10.59	0.95	55.5	7.1	15	5.8	9.6
8001	0.39	3	0.5	3.65	0.8	65.1	< .05	0.53	0.07	5.9	0.005	0.16	0.18	1	31	< .2	12.24	1.13	73.3	7.3	15	9.7	50.9
8002	0.63	4.2	0.6	6.82	0.9	31.8	< .05	1.1	0.05	8	0.006	0.22	0.3	1.6	41	< .2	26.07	2.01	86.2	7.5	15	6.1	6.4
8003	0.44	3	0.5	4.08	0.7	45.4	< .05	0.56	0.07	6.4	0.007	0.18	0.17	0.8	30	< .2	13.23	1.1	76	7.1	15	9.5	34.9
8004	0.42	3	0.5	3.98	0.8	43.8	< .05	0.6	0.07	6.1	0.007	0.19	0.17	0.9	29	< .2	12.74	1.24	72.9	6.3	15	9.5	36.7
8004	0.4	2.8	0.4	3.76	0.7	42.3	< .05	0.54	0.04	5.8	0.006	0.19	0.17	0.8	28	< .2	12.33	1.13	70.7	6.1	15	9.5	36.2
8005	0.62	3.5	0.6	5.07	0.8	47.3	< .05	0.64	0.06	7.7	0.006	0.2	0.22	1.4	36	< .2	15.72	1.41	77.4	7.6	15	7.9	13
8006	0.6	3.1	0.6	4.17	0.9	28.1	< .05	0.66	0.05	6.9	0.006	0.21	0.2	1	33	< .2	14.85	1.38	83.5	7.8	15	7.1	6
8007	0.55	3.2	0.5	4.26	0.7	38.5	< .05	0.56	0.07	6.9	0.005	0.2	0.19	1	30	< .2	13.86	1.15	80.4	7.8	15	9.3	35.9
8008	0.53	2.9	0.5	3.78	0.8	46.9	< .05	0.57	0.06	5.9	0.007	0.17	0.17	0.9	28	< .2	12.52	1.17	71.2	7.5	15	9.5	41.6
8009	0.47	3	0.6	3.82	0.6	56	< .05	0.6	0.07	6.1	0.006	0.19	0.18	1	30	< .2	13.63	1.16	76.6	7.5	15	9.5	44.5
8010	0.55	3.7	0.6	5.01	0.7	29.8	< .05	0.79	0.04	7.8	0.005	0.2	0.23	1.2	33	< .2	18.62	1.52	72.4	7.8	15	5.9	6.6
8011	0.49	3.2	0.5	3.96	0.7	62	< .05	0.62	0.07	6.4	0.003	0.19	0.19	1.1	31	< .2	14.47	1.25	76.9	7.2	15	9.4	43.6
8013	0.6	3.4	0.5	5.08	0.7	41.3	< .05	0.69	0.06	7.4	0.002	0.2	0.23	1	35	< .2	18.58	1.5	75.9	9.1	15	7.1	13.2
8014	0.53	3.1	0.6	3.95	0.7	68.3	< .05	0.56	0.07	6.9	0.003	0.18	0.18	1.2	32	< .2	13.6	1.27	74.5	7.7	15	9.1	44
8015	0.6	3.1	0.7	4.95	0.7	26.1	< .05	0.64	0.09	6.9	0.004	0.21	0.21	1.1	32	< .2	16.4	1.29	75.7	7.4	15	7.1	7.5
8016	0.56	3	0.7	4.98	0.7	25.8	< .05	0.63	0.08	6.6	0.005	0.21	0.22	1.1	32	< .2	16.95	1.44	76.7	7.1	15	6.9	6.3

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
8016	0.61	3.1	0.8	4.82	0.6	26.3	< .05	0.64	0.1	7	0.004	0.2	0.22	1.2	32	< .2	16.99	1.4	79.6	7.3	15	6.8	6.7
8017	0.57	3.1	0.5	4.13	0.7	38.2	< .05	0.57	0.07	6.6	0.005	0.19	0.19	1	32	< .2	14.21	1.24	79.5	7.5	15	8.8	30.4
8018	0.51	3.1	0.5	3.75	0.5	72.5	< .05	0.52	0.08	6.1	0.004	0.17	0.16	1	33	< .2	13.29	1.16	70.2	6.9	15	9.1	43.3
8019	0.57	3.3	0.4	3.98	0.7	49	< .05	0.54	0.02	6.2	0.006	0.16	0.18	1	36	< .2	13.57	1.17	73.2	7.2	15	9	41
8020	0.48	1.9	0.5	3.11	0.5	44	< .05	0.41	0.04	4.2	0.005	0.13	0.14	0.8	22	< .2	10.44	0.89	63.7	6.4	15	9.3	40.7
8021	0.41	3.6	0.6	5.44	0.8	35.8	< .05	0.76	0.11	7.1	0.005	0.17	0.27	0.9	36	< .2	24.58	1.73	74.6	8.3	15	8.8	41.9
8022	0.49	3.4	0.6	4.97	0.8	36.1	< .05	0.66	0.11	6.7	0.005	0.16	0.23	1	34	< .2	19.63	1.52	73.3	7.6	15	8.8	34.6
8023	0.4	3.1	0.6	4.25	0.8	47.3	< .05	0.62	0.07	5.3	0.005	0.16	0.22	0.9	31	< .2	18.38	1.54	64.2	6	15	9.1	45.2
8025	0.42	2.9	0.5	3.96	0.7	40.2	< .05	0.52	0.03	5.5	0.006	0.16	0.19	0.9	30	< .2	13.6	1.22	67.9	5.6	15	9.1	40.2
8026	0.42	2.9	0.4	4.08	0.8	42.1	< .05	0.55	0.05	5.9	0.005	0.16	0.16	0.9	28	< .2	13.55	1.13	72.1	6.9	15	9.1	37.9
8027	0.37	3.1	0.4	4.01	0.6	27.3	< .05	0.51	0.05	6	0.006	0.16	0.15	0.8	33	< .2	12.48	1.1	65.1	6	15	8.5	19.9
8028	0.38	3.3	0.5	4.33	0.6	29.9	< .05	0.52	0.05	6.7	0.006	0.17	0.17	0.8	38	< .2	13.17	1.21	69.4	6.9	15	8.4	17.2
8028	0.35	3.2	0.4	4.25	0.7	28.4	< .05	0.5	0.04	6.3	0.006	0.17	0.15	0.8	37	< .2	12.28	1.06	66.8	6.4	15	8.4	16.8
8029	0.39	3.2	0.3	4.36	0.9	40.3	< .05	0.55	0.04	6.3	0.006	0.18	0.18	0.8	35	< .2	13.98	1.25	73.4	7.3	15	9	38.4
8030	0.5	3.3	0.4	4.06	0.6	48.1	< .05	0.52	0.05	6.6	0.007	0.2	0.18	0.9	37	< .2	13.88	1.2	78	8	15	9	38.2
8031	0.43	2.8	0.4	3.36	0.8	58.3	< .05	0.44	0.08	4.9	0.005	0.15	0.14	0.8	32	< .2	10.6	0.98	56.8	6.7	15	9.2	48
8032	0.33	2.6	0.3	3.51	0.6	71.1	< .05	0.48	0.06	4.8	0.005	0.13	0.14	0.8	31	< .2	11.54	0.95	44.3	5.8	15	9.4	46.2
8033	0.28	2.3	0.3	3.37	0.6	74.7	< .05	0.45	0.05	4.2	0.003	0.12	0.13	0.7	29	< .2	11.62	0.85	42.7	4.1	15	9.4	45.3
8034	0.31	2.5	0.4	4.63	0.5	34.8	< .05	0.58	0.05	5.5	0.004	0.16	0.16	0.6	25	< .2	14.27	1.05	44.4	5.2	15	9.3	40.6
8035	0.45	3.5	0.5	4.55	0.8	44.6	< .05	0.63	0.06	6.8	0.004	0.17	0.17	0.9	37	< .2	14.46	1.08	75.1	9	15	9.2	39.5
8037	0.44	3	0.4	4.02	0.6	35.3	< .05	0.54	0.06	6.7	0.008	0.16	0.14	0.8	37	< .2	12.65	0.92	72.1	7.5	15	9.2	36.8
8038	0.45	3.5	0.5	4.2	0.7	46.4	< .05	0.56	0.07	6.7	0.005	0.18	0.16	0.9	36	< .2	14.66	1.03	77.6	8.1	15	9.2	40
8039	0.43	3.3	0.5	4.28	0.7	40	< .05	0.59	0.04	6.6	0.005	0.16	0.17	0.9	35	< .2	14.57	1.09	75.3	8.3	15	9	32.3
8040	0.46	3.2	0.5	4.16	0.7	49.9	< .05	0.57	0.05	6.3	0.007	0.16	0.17	0.9	34	< .2	13.93	1.01	70.6	7.6	15	9.1	37.8
8040	0.45	3.2	0.5	4.44	0.7	53.1	< .05	0.55	0.05	6.6	0.004	0.17	0.17	0.9	34	< .2	14.15	1.09	73.5	8.2	15	9.1	38.8
8041	0.5	3.5	0.4	4.74	0.7	36.9	< .05	0.63	0.08	6.9	0.009	0.18	0.2	0.9	40	< .2	15.58	1.23	97.2	9.4	15	8.8	28.6
8042	0.24	2.3	0.4	3.23	0.7	11[illegible].3	< .05	0.45	0.08	4.3	0.006	0.12	0.13	0.7	29	< .2	10.48	0.86	44.4	3.7	15	9.2	73.3
8043	0.3	1.9	0.2	3.16	0.4	34.3	< .05	0.39	0.04	5.1	0.005	0.11	0.11	0.7	23	< .2	9.97	0.68	42.6	5.5	15	9.3	35.9
8044	0.37	2.2	0.2	4.21	0.5	43.2	< .05	0.52	0.05	7	0.014	0.14	0.15	0.9	29	< .2	12.14	0.86	54.3	6.4	15	9.2	35.8
8045	0.43	2.6	0.3	3.56	0.5	74.3	< .05	0.48	0.08	5.4	0.005	0.17	0.14	0.8	31	< .2	11.52	0.84	65.9	9	15	9.3	51.1
8046	0.44	2.9	0.4	3.71	0.7	58.6	< .05	0.54	0.07	6.1	0.003	0.18	0.17	1	39	< .2	13.39	1.03	67.9	9.3	15	9.2	65.2
8047	0.46	2.6	0.4	4.08	0.8	63.2	< .05	0.57	0.09	6.5	0.006	0.18	0.17	1.1	35	< .2	13.64	1.1	64.3	10.4	15	9.3	47.7
8049	0.55	2.6	0.4	3.79	0.7	47.4	< .05	0.54	0.07	6	0.005	0.24	0.17	0.9	34	< .2	12.88	0.96	80.1	9.7	15	9.1	35.6
8050	0.56	3.3	0.4	4.39	0.8	49.9	< .05	0.61	0.07	7.1	0.005	0.19	0.18	1	42	< .2	14.46	1.14	84.3	12.1	15	8.3	14.9
8051	0.66	3.2	0.6	4.4	0.8	50.1	< .05	0.63	0.09	7.1	0.005	0.25	0.21	1.1	44	< .2	15.63	1.18	85.6	10	15	8.4	13.6
8052	0.65	2.9	0.6	4.17	0.7	47.9	< .05	0.6	0.08	6.7	0.006	0.25	0.18	1.1	40	< .2	14.35	1.11	87.8	10.2	15	8.9	25.2

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
8052	0.65	2.9	0.6	3.98	0.6	47.8	< .05	0.56	0.09	6.4	0.004	0.23	0.19	1	39	< .2	14.04	1.04	87.9	9.9	15	8.9	26
8053	0.46	2.8	0.3	4.2	0.6	50.4	< .05	0.57	0.06	5.9	0.006	0.18	0.17	0.8	38	< .2	13.62	1.02	67.8	8.3	15	9.2	36.8
8054	0.67	2.9	0.4	4.19	0.6	54.5	< .05	0.57	0.08	6.6	0.006	0.23	0.17	1	43	< .2	14.62	1.07	76.7	10.4	15	9.3	49
8055	0.45	2.1	0.7	2.97	0.5	133.5	< .05	0.4	0.06	3.9	0.004	0.19	0.13	1.4	30	< .2	10.98	0.83	63	7.3	15	9.3	153.6
8056	0.6	2.1	0.6	3.07	0.4	63	< .05	0.44	0.05	4.7	0.009	0.23	0.14	1.1	28	< .2	11.1	0.82	71.5	8.1	15	9.2	221.1
8057	0.67	2.3	1.2	3.98	0.4	57.5	< .05	0.54	0.07	6	0.011	0.24	0.16	1.2	31	< .2	13.48	0.99	82.4	8.6	15	9	231
8058	0.55	2.3	0.6	3.38	0.5	77.6	< .05	0.45	0.06	4.8	0.006	0.2	0.15	1.1	31	< .2	11.59	0.88	69.6	8.3	15	9	292.6
8059	0.34	3	0.6	2.48	0.8	206.7	< .05	0.4	0.08	4.9	0.004	0.14	0.13	0.7	36	< .2	9.89	0.69	46.6	17.7	15	8.1	2982
8061	0.41	3.9	0.5	4.92	0.7	90.5	< .05	0.7	0.06	7.2	0.005	0.15	0.22	1	38	< .2	17.88	1.29	64.8	9.1	15	9.2	57.6
8062	0.52	4.4	0.4	4.68	1.5	51.4	< .05	0.66	0.06	6.5	0.029	0.24	0.19	1.1	54	< .2	16.15	1.13	72.7	10.1	15	8.8	26.2
8063	0.52	3.2	0.5	4.33	0.8	56	< .05	0.58	0.08	6.8	0.004	0.15	0.2	1.1	34	< .2	15.11	1.12	57	9.9	15	9.2	47.3
8064	0.49	3.7	0.4	4.53	0.6	51.2	< .05	0.56	0.05	7	0.004	0.13	0.18	1	29	< .2	14.68	1.2	52.4	7.7	15	8.8	27.4
8064	0.52	3.6	0.4	4.4	0.7	52.4	< .05	0.62	0.06	7.5	0.004	0.15	0.19	1.1	30	< .2	14.97	1.28	51	8	15	8.9	28.1
8065	0.59	3	0.4	3.77	0.6	51.3	< .05	0.51	0.06	6.5	0.006	0.2	0.16	0.9	30	< .2	12.93	1.08	68.8	8.5	15	9	31.7
8066	0.43	1.7	0.5	2.06	0.4	152.7	< .05	0.33	0.05	3.7	0.005	0.14	0.1	0.7	19	< .2	7.83	0.71	37.4	8.4	15	8.3	2675.9
8067	0.4	3.4	0.3	4.11	0.8	66.9	< .05	0.55	0.07	7.9	0.005	0.17	0.18	1.1	35	< .2	12.96	1.2	53.2	10.2	15	8.9	132.1
8068	0.36	3.2	0.3	4.07	0.7	55.3	< .05	0.54	0.05	7.4	0.006	0.15	0.17	1	34	< .2	12.1	1.1	50.4	9.9	15	9	66
8082	0.22	7.2	0.2	6.01	0.9	138.6	< .05	0.7	0.06	3.5	0.107	0.2	0.3	0.7	58	0.4	21.76	2.02	64.8	28	15	6.3	7.1
8083	0.05	6.3	0.3	3.91	0.6	163.5	< .05	0.45	0.05	1.8	0.076	0.16	0.17	0.5	48	0.2	14.14	1.13	52	22.2	15	6.5	5.8
8084	0.08	6.7	0.3	3.16	0.8	172.5	< .05	0.37	0.05	2.5	0.109	0.16	0.13	0.8	57	0.2	9.77	0.79	60.2	24.7	15	6.6	7.2
8085	0.11	6.3	0.4	4.39	0.7	187.6	< .05	0.48	0.05	3.1	0.068	0.13	0.15	1	54	0.2	12.44	0.91	57.8	24.3	15	6.6	6.1
8086	0.41	5.9	0.4	3.12	0.7	197.9	< .05	0.38	0.03	3.3	0.088	0.17	0.15	0.9	69	0.2	10.98	0.9	60	25	15	7.6	10.7
8087	0.4	2.7	0.2	2.37	0.4	66.2	< .05	0.27	0.02	3.8	0.004	0.11	0.1	0.5	19	< .2	6.7	0.58	30.3	6.2	15	8.4	43.9
8088	0.61	3.8	0.5	5.14	0.7	36	< .05	0.63	0.03	5.7	0.008	0.16	0.22	1	34	< .2	13.6	1.35	71	8.2	15	5.1	7.6
8089	0.26	5.8	0.3	4.3	0.8	88.5	< .05	0.53	0.04	4.5	0.065	0.14	0.21	0.9	58	0.2	13	1.23	58.7	23.1	15	6	8.8
8090	0.21	6.5	0.3	3.8	0.8	170.8	< .05	0.49	0.06	2.9	0.088	0.16	0.18	0.8	53	0.3	14.93	1.18	60.8	27.1	15	6.5	6.6
8091	0.11	5.4	0.1	3.99	0.6	215.1	< .05	0.31	0.05	7.4	0.057	0.14	0.08	0.4	49	< .2	6.86	0.52	50.4	18.9	15	8	34.1
8092	0.07	6.3	0.1	4.92	0.7	124.5	< .05	0.42	0.03	7.1	0.054	0.16	0.1	0.3	53	< .2	8.89	0.69	53.1	28.3	15	7.1	7.5
8093	0.07	6.4	0.2	4.92	0.6	126.7	< .05	0.41	0.03	7	0.055	0.15	0.1	0.3	51	< .2	9.21	0.62	53.7	29.3	15	7	7
8094	0.07	6.5	0.2	4.99	0.8	134.9	< .05	0.41	0.03	7.3	0.059	0.16	0.12	0.4	53	< .2	9.68	0.71	54.8	30.1	15	7	6.9
8096	0.14	5.9	0.1	5.15	0.7	119.9	< .05	0.47	0.05	7.8	0.051	0.19	0.13	0.5	51	< .2	11.37	0.82	54.5	26	15	6.9	5.9
8097	0.17	4.8	0.1	4.29	0.6	157.5	< .05	0.39	0.03	6.8	0.038	0.15	0.12	0.6	48	< .2	9.99	0.81	50.1	19.4	15	8	28.7
8098	0.34	3.7	0.2	3.69	0.5	223.2	< .05	0.4	0.02	5	0.019	0.1	0.13	0.7	38	< .2	10.34	0.91	45.9	10.6	15	8.5	52.5
8099	0.16	5.8	< .1	4.6	0.9	113.7	< .05	0.43	0.04	7.2	0.041	0.15	0.15	0.7	57	< .2	11.35	0.9	59.8	22.5	15	7.1	12
8100	0.59	5	0.2	4.17	0.7	49.8	< .05	0.52	0.04	4.1	0.009	0.14	0.23	0.7	41	< .2	16.21	1.41	72	10.6	15	6.4	8.4
8101	0.61	5.3	0.1	4.99	0.7	43.4	< .05	0.65	0.05	4.6	0.01	0.14	0.23	0.7	49	< .2	16.65	1.42	89.4	9.9	15	5.9	6.4

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
8102	0.73	5.5	0.8	5.32	0.7	49.3	< .05	0.66	0.06	4.6	0.011	0.12	0.25	1.2	51	< .2	16.27	1.43	85.8	11.8	15	5.3	5.3
8103	0.81	4.7	0.1	5.64	0.7	311.5	< .05	0.65	0.07	6.1	0.018	0.16	0.26	0.8	43	< .2	18.74	1.73	63.5	14.9	15	7.8	27.6
8104	0.17	6.1	0.1	5.18	0.7	133.7	< .05	0.6	0.04	4.3	0.073	0.15	0.22	0.7	59	0.2	17.96	1.44	57.5	28.5	15	7.1	6.3
8105	0.45	4.1	0.6	3.97	0.6	359.9	< .05	0.48	0.07	2.2	0.067	0.16	0.19	0.6	40	0.4	15.64	1.26	42.7	18.7	15	8.2	62.6
8106	0.57	4	0.4	7.44	0.7	47.7	< .05	0.97	0.06	5.9	0.007	0.16	0.36	1.1	37	< .2	28.97	2.39	83.5	8.6	15	7.4	20.1
8107	0.61	3.9	0.3	7.74	0.7	45.3	< .05	0.98	0.05	5.9	0.007	0.17	0.4	1.1	36	< .2	29.06	2.57	82.9	9.1	15	7.1	12.7
8108	0.58	3.8	0.3	7.71	0.7	44.1	< .05	1.02	0.05	5.9	0.008	0.17	0.41	1.1	36	< .2	28.39	2.57	82	8.8	15	6.3	10.1
8110	0.08	7.1	0.1	5.63	1	134.2	< .05	0.62	0.03	3.4	0.128	0.12	0.2	0.9	58	0.2	15.38	1.27	63	30.8	15	6.5	7.4
8111	0.59	3.8	0.7	5.49	1.1	47.5	< .05	0.69	0.08	6.8	0.008	0.19	0.24	1.3	52	< .2	18.65	1.47	73.2	8.6	15	6.1	6.9
8112	0.16	6.6	0.2	6.42	0.9	128.5	< .05	0.75	0.03	3.4	0.112	0.11	0.26	0.8	61	0.2	18.57	1.63	62.6	26.5	15	6.2	7
8113	0.16	6.8	0.4	6.63	0.7	166.6	< .05	0.81	0.06	4.1	0.115	0.19	0.31	1	61	0.3	24.19	1.97	54.5	30.1	15	6.5	5.9
8114	0.41	6.3	0.3	3.4	0.8	275.8	< .05	0.4	0.04	2.8	0.097	0.26	0.15	0.7	70	0.2	10.78	1.02	57.8	26.9	15	7.2	8.2
8115	0.14	6.8	0.2	4.86	0.8	171.2	< .05	0.54	0.02	3.9	0.093	0.17	0.2	0.7	57	0.2	15.93	1.26	56.8	29.4	15	7	7.8
8116	0.13	5.8	0.2	4.31	0.8	145.2	< .05	0.47	0.06	4.6	0.082	0.12	0.15	1.2	70	< .2	11.65	0.91	58.1	25.2	15	7.1	9.6
8117	0.7	3.7	0.3	4.71	0.7	43.5	< .05	0.6	0.07	6.6	0.01	0.22	0.21	0.9	41	< .2	15.61	1.26	80.1	7.5	15	7.6	22.5
8118	0.44	5.1	< .1	4.22	0.7	56.7	< .05	0.5	0.05	4.3	0.008	0.16	0.18	0.6	47	< .2	11.74	1.1	82.4	6.2	15	5.6	5.9
8119	0.32	3.6	0.1	4.91	0.7	150.5	< .05	0.57	0.03	5.1	0.004	0.13	0.2	0.8	22	< .2	13.96	1.25	38.4	5.7	15	8.5	54.9
8120	0.34	3.6	0.1	3.64	0.6	80	< .05	0.43	0.04	4.5	0.004	0.16	0.15	0.6	24	< .2	10.5	1	36.5	4.8	15	8.3	46.3
8121	0.34	4	0.2	3.78	0.7	82.5	< .05	0.44	0.02	4.7	0.005	0.17	0.17	0.7	29	< .2	10.62	1.03	42.3	4.7	15	8.2	48.8
8122	0.36	3.8	0.1	3.75	0.6	80.3	< .05	0.44	0.05	4.7	0.004	0.16	0.15	0.7	27	< .2	10.34	1.02	42.8	5	15	8.2	48
8124	0.35	3.2	0.1	3.7	0.5	158.9	< .05	0.45	0.04	3.5	0.004	0.13	0.15	0.5	21	< .2	10.54	0.88	46.5	4.3	15	8.2	47.2
8125	0.69	5.6	0.2	4.24	0.7	113	< .05	0.58	0.05	5.1	0.005	0.32	0.2	0.8	38	< .2	15.25	1.29	66.9	5.7	15	8.3	52.9
8126	2.58	6.5	0.7	5.12	0.7	235.2	< .05	0.83	0.1	3.4	0.018	0.19	0.36	1	65	< .2	30.3	2.21	76	15.3	15	8.1	61.1
8127	0.92	4.6	0.2	3.78	0.5	106	< .05	0.51	0.05	4.4	0.005	0.2	0.19	0.5	42	< .2	14.29	1.16	60.1	9.2	15	8.3	51.2
8128	0.55	6	1.3	4.57	0.5	89.5	< .05	0.64	0.03	3.9	0.01	0.16	0.29	1.5	41	< .2	21.56	1.64	84	8.9	15	7.6	14.5
8129	0.54	5	0.4	3.31	0.6	97.8	< .05	0.44	0.05	4.3	0.008	0.14	0.19	1.4	43	< .2	12.23	1.16	89.8	11.3	15	7.5	8.2
8130	0.71	4.6	2.4	2.91	0.6	77.4	< .05	0.4	0.05	4	0.009	0.12	0.16	1.1	47	< .2	10.67	0.95	90.5	10.3	15	8	77.5
8131	0.59	4.7	0.7	2.92	0.4	94.5	< .05	0.42	0.06	2.5	0.01	0.1	0.19	0.8	45	< .2	14	1.14	69.1	8.9	15	8.3	57.1
8132	0.39	4.9	0.1	3.27	0.6	47.8	< .05	0.43	0.05	4.3	0.009	0.14	0.14	0.5	39	< .2	10.27	0.99	93	8.5	15	7.4	12.6
8133	0.42	4.4	0.3	3.48	0.8	84.4	< .05	0.44	0.05	4.7	0.011	0.15	0.17	0.6	42	< .2	11.97	1.05	79.2	7.1	15	8.3	44.3
8134	0.56	5.2	0.5	3.57	0.6	60.9	< .05	0.44	0.05	4.4	0.011	0.14	0.19	0.8	43	< .2	13.08	1.17	87.6	9.4	15	7.7	18
8135	0.57	4.9	0.2	3.44	0.7	62.8	< .05	0.44	0.04	4.3	0.01	0.14	0.19	0.7	42	< .2	13.32	1.13	86.4	9.5	15	7.6	16.5
8136	0.57	4.9	0.4	3.38	0.6	61.5	< .05	0.43	0.05	4.2	0.01	0.13	0.18	0.7	42	< .2	12.92	1.16	85.7	9.4	15	7.6	16.2
8138	0.64	4.4	2.1	3.04	0.7	91	< .05	0.38	0.05	4.4	0.007	0.16	0.15	1.8	43	< .2	10.22	0.89	58.2	8.4	15	7.7	25.3
8139	0.46	3.6	0.4	2.96	0.5	90	< .05	0.41	0.04	3.4	0.012	0.13	0.16	2.7	37	< .2	11.26	1	82	9.6	15	7.1	205.6
8140	0.24	4.1	< .1	3.56	0.6	70.2	< .05	0.45	0.03	4.4	0.009	0.15	0.17	0.6	38	< .2	11.35	1.03	77.7	6.7	15	7.5	14.1

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
8141	0.31	3.1	0.3	2.56	0.4	652.4	< .05	0.37	0.12	2.5	0.005	0.07	0.15	0.5	29	< .2	11.91	1.02	56.2	6.4	15	8.2	57.9
8142	0.74	3.2	0.8	5.71	0.9	43.4	< .05	0.72	0.05	8.9	0.006	0.26	0.31	2.6	42	< .2	20.22	1.85	77.2	9.2	15	5.1	13.3
8143	0.8	3.3	0.8	6.28	0.8	43.8	< .05	0.83	0.06	8.9	0.007	0.29	0.36	1.8	43	< .2	26.53	2.22	80	10.5	15	5	9.7
8144	0.23	0.9	2.2	1.44	0.3	269	< .05	0.19	0.05	1.7	0.005	0.09	0.08	3.1	14	< .2	5.33	0.49	45.3	4	15	7.6	123.2
8145	0.33	2.8	0.2	4.62	0.7	48.1	< .05	0.53	0.04	7.7	0.009	0.14	0.22	0.6	32	< .2	13.52	1.27	56.8	7.6	15	7.9	27.8
8146	0.41	3.3	0.4	5.96	0.8	22.8	< .05	0.69	0.06	8.8	0.009	0.16	0.26	1.2	33	< .2	16.39	1.63	57.3	9.9	15	4.6	6.9
8147	0.36	2.8	0.6	6.13	0.9	27.7	< .05	0.71	0.02	8.9	0.008	0.17	0.25	2.3	30	< .2	17.24	1.57	54	8.1	15	4.6	6.6
8148	0.41	3	0.6	6.18	0.8	26.2	< .05	0.71	0.06	8.9	0.008	0.19	0.28	2.1	31	< .2	17.63	1.68	55	9.1	15	4.5	6.4
8149	0.38	3	0.5	6.29	1	26.1	< .05	0.71	0.04	8.9	0.008	0.17	0.27	2.1	29	< .2	17.15	1.59	55.6	8.8	15	4.5	6.3
8150	0.37	2.9	0.5	6.19	0.9	25.1	< .05	0.73	0.04	8.8	0.007	0.16	0.29	2	29	< .2	18.05	1.69	57.6	9.4	15	4.5	6.5
8152	0.57	3	0.6	6.58	1	34.8	< .05	0.81	0.09	9.2	0.006	0.23	0.35	1.8	36	< .2	20.53	2.13	67.6	8	15	4.9	6.2
8153	0.47	2.2	0.4	4.55	0.7	51.8	< .05	0.57	0.06	7.5	0.007	0.18	0.25	1.3	27	< .2	16.37	1.49	72	7.3	15	7.1	10.4
8154	0.54	2.6	0.9	4.97	0.7	33.2	< .05	0.62	0.06	8	0.007	0.19	0.26	1.9	32	< .2	17.31	1.51	65.9	7.6	15	5.2	4.6
8155	0.36	2.4	0.2	4.52	0.6	31.8	< .05	0.49	0.05	7.5	0.015	0.17	0.19	1.4	33	< .2	12.92	1.14	55.1	11.9	15	5.9	8.8
8156	0.47	2.1	0.9	5.03	0.6	26.8	< .05	0.61	0.02	7.1	0.008	0.17	0.23	2.2	25	< .2	13.81	1.44	53	6.6	15	4.8	4.3
8157	0.49	2.6	0.9	4.99	0.9	36.1	< .05	0.54	0.05	8.4	0.007	0.2	0.18	2.9	30	< .2	13.76	1.34	52.6	7.4	15	4.8	6
8158	0.58	2.9	1.4	3.87	1	52.2	< .05	0.46	0.11	9.1	0.003	0.19	0.18	3.3	32	< .2	11.29	1.04	55.3	7.7	15	4.6	8.2
8159	0.6	2.9	1.3	4.77	1	78.8	< .05	0.59	0.11	8.9	0.004	0.19	0.23	3.4	32	< .2	14.38	1.46	61.4	6.8	15	4.5	8.1
8160	0.56	2.9	0.9	6.59	0.6	24.8	< .05	0.85	0.06	7.6	0.008	0.22	0.33	2.6	32	< .2	20.97	2.06	77.9	8.1	15	4.7	5.7
8161	0.5	2.4	0.6	5.67	0.6	24.1	< .05	0.69	0.05	7.2	0.009	0.17	0.34	1.3	31	< .2	21.13	2.12	57.6	8.6	15	5	5.2
8162	0.66	2.8	0.6	5.91	0.8	38.3	< .05	0.78	0.09	8	0.006	0.25	0.32	1.8	32	< .2	22	1.93	93.1	8.4	15	6.1	8.4
8163	0.67	2.6	0.5	5.29	0.7	40.5	< .05	0.68	0.07	8.2	0.006	0.25	0.28	1.9	31	< .2	20.4	1.74	88.7	8.6	15	6.1	8.9
8164	0.67	2.7	0.6	5.07	0.8	38.4	< .05	0.66	0.07	8.2	0.006	0.24	0.27	1.8	31	< .2	19.48	1.62	86.8	8.3	15	6.1	8.6
8166	0.54	3.4	0.8	6.87	0.9	41.5	< .05	0.83	0.06	9.2	0.005	0.2	0.32	4.3	36	< .2	21.21	1.83	87.7	8	15	4.7	6.6
8167	0.52	2.8	0.8	5.6	1.2	103.4	< .05	0.66	0.09	9.5	0.004	0.19	0.26	2	27	< .2	17.33	1.64	59.4	8.2	15	4.6	8.9
8168	0.53	2.4	0.6	5.04	0.8	28	< .05	0.61	0.05	7.5	0.007	0.2	0.25	1.7	29	< .2	16.41	1.51	55.9	7.4	15	4.7	6.2
8169	0.56	2.8	0.6	5.17	0.8	42.6	< .05	0.68	0.1	8.6	0.005	0.22	0.29	1.9	30	< .2	19.08	1.76	70.9	7.7	15	5.1	6.8
8170	0.51	2.1	0.4	4.37	0.7	25.8	< .05	0.61	0.04	6.7	0.008	0.17	0.26	1.2	25	< .2	18.74	1.6	59.5	8.7	15	5.3	6.4
8171	1.6	3.1	1.8	6.87	0.9	68.1	< .05	1.03	0.1	7.6	0.005	0.38	0.45	1.9	55	< .2	33.65	2.67	111.5	9.7	15	5.1	78.6
8172	0.25	2.2	0.8	4.24	0.8	131.3	< .05	0.53	0.06	8	0.003	0.17	0.23	0.7	18	< .2	16.27	1.42	46.7	6.2	15	4.5	11.3
8173	0.65	3.1	1.2	4.99	1	86.8	< .05	0.65	0.11	8.7	0.004	0.22	0.26	2	33	< .2	18.85	1.55	74.2	8	15	4.5	8.8
8174	0.63	2.4	0.9	4.19	0.9	131.6	< .05	0.52	0.1	9.2	0.003	0.21	0.2	4.2	25	< .2	14.29	1.34	44.8	8.2	15	4.7	9.9
8175	0.7	2.8	0.8	5.23	0.9	32.7	< .05	0.71	0.08	8.3	0.004	0.21	0.27	2.1	31	< .2	18.59	1.8	69.2	9.9	15	5	11.1
8176	0.65	2.9	0.9	5.16	0.8	32.1	< .05	0.69	0.09	8.4	0.004	0.2	0.28	2.4	31	< .2	16.31	1.67	68.8	9.3	15	4.7	9.2
8177	0.64	2.9	0.7	5.2	0.8	30.3	< .05	0.61	0.05	7.8	0.004	0.19	0.25	2	31	< .2	15.5	1.56	65.6	8.8	15	4.7	9.7
8178	0.62	3.3	0.9	5.52	0.9	34.4	< .05	0.68	0.05	8.8	0.005	0.21	0.27	2.1	36	< .2	16.47	1.62	68.7	9.1	15	4.6	9.7

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
8180	0.54	3.4	0.4	5.9	0.8	30.3	< .05	0.8	0.04	7.7	0.006	0.18	0.32	1.4	35	< .2	22.02	2.18	68.5	7.7	15	5.4	9.4
8181	0.55	3.2	0.5	3.89	0.6	82.8	< .05	0.54	0.06	6.3	0.005	0.16	0.17	1.3	32	< .2	13	1.19	69	8.1	15	9.2	47.8
8182	0.51	3.1	0.6	3.98	0.6	96.3	< .05	0.49	0.06	6.3	0.003	0.16	0.17	1.2	33	< .2	12.83	1.17	68	7	15	9.2	51.1
8183	0.51	3.3	0.3	4.08	0.7	53.2	< .05	0.54	0.06	6.6	0.006	0.2	0.18	1.3	36	< .2	13.61	1.09	74.7	7.8	15	8.8	74.3
8184	0.49	3.2	0.4	3.95	1	50.6	< .05	0.56	0.04	6.5	0.005	0.2	0.18	1.3	35	< .2	13.39	1.21	77.8	7.4	15	8.8	69.3
8184	0.5	3	0.5	3.91	0.8	47	< .05	0.49	0.08	6.1	0.003	0.2	0.17	1.3	32	< .2	12.78	1.07	76.5	7.6	15	8.7	73.4
8185	0.37	3	0.5	3.6	0.7	75.1	< .05	0.47	0.06	5.5	0.004	0.15	0.17	0.9	31	< .2	12.59	1.12	62.6	7	15	9.2	47
8186	0.5	2.9	0.5	3.96	0.7	65.1	< .05	0.56	0.07	5.7	0.004	0.17	0.18	1	32	< .2	12.95	1.17	72.2	7.1	15	9.2	46.5
8187	0.53	3	0.4	3.88	0.7	54.4	< .05	0.48	0.08	6	0.003	0.16	0.19	1.6	35	< .2	12.68	1.13	67.4	6.9	15	7.4	12.5
8188	0.5	2.8	0.5	3.9	0.5	53.5	< .05	0.48	0.07	5.6	0.005	0.19	0.18	0.9	28	< .2	12.84	1.24	70.7	7	15	9.1	42.7
8189	0.57	3	0.5	4.38	0.8	61.6	< .05	0.61	0.09	6.7	0.005	0.2	0.18	1.2	33	< .2	14.76	1.41	74.3	8	15	9.1	41.3
8194	0.41	3	0.2	5.25	0.8	43.1	< .05	0.66	0.03	8.8	0.013	0.2	0.29	2.6	33	< .2	17.96	1.68	65	10.8	15	5.5	9
8195	0.63	2.8	1.9	8.54	1.2	228.6	< .05	1.19	0.13	10.3	0.003	0.27	0.5	5.7	24	< .2	36.67	2.93	102.6	8.1	15	4.6	12.7
8196	0.48	2.2	0.3	3.91	0.5	31.5	< .05	0.5	0.04	6.8	0.008	0.16	0.19	1.8	26	< .2	13.45	1.15	60.5	7.8	15	6.5	10.7
8197	0.57	3	0.6	4.84	1	100.2	< .05	0.63	0.09	8.9	0.003	0.2	0.24	3.4	30	< .2	19.26	1.59	61.5	8	15	6.3	16.2
8198	0.67	2.9	1	5.79	0.9	72.5	< .05	0.79	0.1	9.1	0.004	0.21	0.33	2.5	34	< .2	19.05	2.01	73.8	7.8	15	4.9	8.9
8199	0.43	2.8	0.3	6.95	0.5	35.7	< .05	0.86	0.05	9.9	0.009	0.2	0.39	2.4	26	< .2	27.4	2.46	61.5	9.3	15	6	13.3
8200	0.4	2.6	0.3	5.16	0.7	40.6	< .05	0.6	0.04	7.8	0.01	0.2	0.24	0.9	26	< .2	14.94	1.32	68.2	9.1	15	6.9	13.3
8201	0.58	2.7	0.5	4.69	0.8	51.3	< .05	0.57	0.07	7.8	0.008	0.19	0.27	1.3	36	< .2	17.95	1.55	69	8.9	15	6.6	12.5
8202	0.61	2.4	0.4	4.46	0.6	51.7	< .05	0.55	0.07	7.7	0.007	0.23	0.22	1.3	29	< .2	15.02	1.36	75.8	9.5	15	7.2	15
8203	0.45	2.3	0.5	4.63	0.7	36.4	< .05	0.56	0.05	6.9	0.006	0.16	0.24	1.7	30	< .2	16.41	1.34	53.8	6.9	15	5.9	8.5
8204	0.5	2.3	0.4	4.43	0.7	38.5	< .05	0.6	0.07	7.1	0.006	0.15	0.22	1.7	29	< .2	15.88	1.55	54	7.3	15	6.1	9.3
8205	0.47	2.4	0.5	4.64	0.7	38.1	< .05	0.6	0.07	7.5	0.006	0.16	0.22	1.8	30	< .2	16.09	1.53	55.8	7.2	15	6.2	9
8207	0.44	2.4	0.4	4.66	0.7	43.6	< .05	0.61	0.03	7.1	0.005	0.19	0.23	1	31	< .2	15.74	1.38	60.4	7.1	15	6.4	9
8208	0.51	2.7	0.5	5.09	1.2	43.1	< .05	0.7	0.06	8	0.005	0.17	0.28	1.6	32	< .2	18.68	1.74	66.7	7.8	15	5.7	8.8
8209	0.57	3	0.8	5.09	0.9	45.1	< .05	0.63	0.09	8.8	0.005	0.23	0.25	3.6	35	< .2	17.26	1.63	67.7	8.1	15	5.1	8.5
8210	0.57	2.6	0.6	5.04	0.9	36	< .05	0.63	0.05	8.1	0.005	0.2	0.25	1.8	31	< .2	16.49	1.55	62.2	8.2	15	4.9	6.3
8211	0.65	2.5	0.5	4.51	0.7	36.6	< .05	0.6	0.07	7.6	0.006	0.22	0.25	1.5	31	< .2	16.3	1.53	75.9	8.7	15	5.3	7.4
8212	0.63	2.5	0.8	4.81	0.7	35.1	< .05	0.62	0.05	7.5	0.006	0.22	0.28	1.7	27	< .2	17.55	1.6	82.7	8.1	15	5.3	7.2
8213	0.62	3	1	6.4	0.9	95.7	< .05	0.8	0.12	9.1	0.004	0.2	0.31	1.9	28	< .2	17.98	1.94	73.6	8	15	4.8	7.6
8214	0.44	2.2	0.4	4.61	0.6	24.3	< .05	0.57	0.03	6.4	0.009	0.18	0.24	1	28	< .2	16.05	1.4	59.5	7	15	5	5.3
8215	0.52	2.4	0.6	5.07	0.8	24.6	< .05	0.65	0.04	7.3	0.007	0.19	0.27	1.6	28	< .2	17.73	1.65	59.1	7.7	15	5	5.3
8216	0.5	5.2	0.1	4.19	0.7	50.4	< .05	0.54	0.06	4.3	0.008	0.18	0.2	0.7	40	< .2	14.82	1.3	90.9	9.7	15	7.6	21.3
8217	0.63	4.6	0.6	3.99	0.7	47.9	< .05	0.47	0.05	4.1	0.013	0.14	0.17	0.9	40	< .2	13.19	1.15	88.1	11.3	15	7.4	11.2
8218	0.58	4.2	0.4	3.71	0.7	46.5	< .05	0.48	0.05	4.1	0.012	0.13	0.18	0.8	39	< .2	12.58	1.11	87.9	11	15	7.3	9.5
8219	0.56	4.3	0.4	3.65	0.6	44.7	< .05	0.46	0.06	4.1	0.012	0.13	0.16	0.8	39	< .2	12.22	1.11	88.5	10.9	15	7.3	9.4

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
8221	0.44	4.6	0.3	3.56	0.6	52.6	< .05	0.44	0.04	4.5	0.009	0.13	0.18	1.2	40	< .2	12.57	1.04	79	8.2	15	6.8	10.8
8222	0.5	4.2	0.4	3.99	0.6	62.4	< .05	0.5	0.04	4.1	0.006	0.18	0.19	1.8	37	< .2	12.16	1.12	79.5	7	15	6.4	11.6
8223	0.78	4	0.8	3.66	0.6	97.5	< .05	0.44	0.07	4.6	0.012	0.15	0.16	1.7	43	< .2	10.44	0.99	88.3	9.1	15	7.1	13.8
8224	0.59	4.8	0.5	3.71	0.7	64.8	< .05	0.52	0.04	4.6	0.011	0.17	0.23	1.6	41	< .2	15.66	1.45	92.7	8.7	15	6.6	11
8225	0.45	5	0.6	3.42	0.7	70.5	< .05	0.46	0.04	4.5	0.011	0.13	0.18	1.1	41	< .2	11.7	1.15	90	10	15	7.6	18.5
8226	1.25	4.4	1.4	4.68	0.6	151.3	< .05	0.6	0.05	5.3	0.011	0.16	0.27	1.7	40	< .2	16.85	1.61	86.4	9.1	15	8.1	41.5
8227	0.58	4.2	0.7	3.83	0.6	80.8	< .05	0.48	0.05	4.3	0.007	0.19	0.2	1.1	35	< .2	12.94	1.24	85.2	7.4	15	7.2	12.8
8228	0.6	4.3	3.4	3.74	0.7	95.1	< .05	0.46	0.04	4.4	0.008	0.14	0.17	1.9	35	< .2	12.21	1.12	83.4	7.1	15	8	33.4
8229	0.3	4.9	0.3	3.07	0.8	150.3	< .05	0.37	0.05	2.6	0.01	0.09	0.14	1.2	58	< .2	9.69	0.9	77.2	5.7	15	6.3	12.8
8230	0.46	4.4	0.5	3.59	0.7	68.1	< .05	0.44	0.05	4.1	0.011	0.14	0.17	0.8	40	< .2	11.85	1.09	84	7.6	15	7.4	10.3
8231	0.65	3.8	0.4	2.91	0.5	80.2	< .05	0.38	0.07	4.6	0.006	0.16	0.14	1	34	< .2	10.31	0.97	56.9	6.2	15	7.8	23.3
8232	0.68	4.3	0.4	3.21	0.7	89.8	< .05	0.41	0.06	4.5	0.009	0.17	0.17	1	39	< .2	11.37	1.02	61.2	6.6	15	7.5	17.4
8232	0.67	4.2	0.4	3.23	0.5	84.7	< .05	0.35	0.06	4.2	0.008	0.16	0.15	1	36	< .2	10.57	1	58.2	6.1	15	7.5	14.7
8300	0.3	3.2	0.4	4.61	0.6	32.7	< .05	0.56	0.04	6	0.009	0.17	0.21	0.7	36	< .2	16.14	1.26	55.4	6.4	15	7.7	42.3
8301	0.06	1.3	0.2	1.67	0.4	20	< .05	0.18	0.02	3.4	0.006	0.1	0.04	0.7	22	< .2	3.2	0.26	24.2	1.6	15	6	10.9
8302	0.44	3.1	0.6	2.52	0.7	21.4	< .05	0.29	0.04	6.6	0.006	0.16	0.08	0.9	40	< .2	7.57	0.5	59.6	5.6	15	5.4	5.3
8304	0.21	4	0.4	4.74	0.9	27.2	< .05	0.56	0.05	7.6	0.006	0.12	0.21	1.3	41	< .2	14.02	1.1	59.2	6.1	15	5.3	9.1
3300-1	0.08	0.4	0.4		0.1	517.4			0.08	0.1	0.001	0.02		0.05	2	0.1	0.27		1482.5	0.3			
3300-2	0.12	0.4	0.4		0.2	433.3			0.05	0.1	0.001	0.01		0.05	2	0.1	0.21		966.1	0.3			
3300-3	0.1	0.3	0.3		0.05	452.8			0.05	0.1	0.002	0.01		0.05	2	0.1	0.14		1342.4	0.2			
3300-4	0.19	0.3	0.4		0.1	807.2			0.08	0.05	0.002	0.01		0.05	2	0.1	0.12		856.5	0.1			
3300-5	0.21	0.4	0.3		0.1	487.6			0.04	0.1	0.002	0.01		0.05	2	0.1	0.17		1285.3	0.2			
3301-1	0.23	0.4	0.3		0.2	609			0.06	0.05	0.002	0.01		0.05	2	0.1	0.13		756.5	0.2			
3301-2	0.16	0.3	0.4		0.05	269.6			0.02	0.05	0.001	0.01		0.05	2	0.1	0.17		597.8	0.2			
3301-3	0.1	0.4	0.4		0.05	591.8			0.04	0.1	0.0005	0.01		0.05	2	0.1	0.14		929.4	0.2			
3301-4	0.09	0.5	0.3		0.2	694.5			0.08	0.05	0.0005	0.01		0.05	2	0.1	0.08		906.9	0.2			
3301-5	0.05	0.4	0.2		0.05	720.3			0.1	0.05	0.002	0.01		0.05	1	0.1	0.06		1085.3	0.1			
3302-1	0.03	0.3	0.3		0.05	899.8			0.1	0.05	0.0005	0.03		0.05	1	0.1	0.05		1027.3	0.1			
3302-2	0.08	0.4	0.3		0.1	730.1			0.1	0.05	0.002	0.01		0.05	2	0.1	0.05		944.1	0.1			
3302-3	0.04	0.3	0.3		0.1	645.8			0.08	0.05	0.001	0.06		0.05	1	0.1	0.08		1114.4	0.1			
3302-4	0.02	0.4	0.2		0.1	747.5			0.09	0.05	0.001	0.01		0.05	2	0.1	0.05		758	0.1			
3302-5	0.03	0.4	0.2		0.05	794.6			0.08	0.05	0.001	0.03		0.05	2	0.1	0.05		1065.2	0.1			
3302-6	0.03	0.3	0.2		0.05	768.4			0.1	0.05	0.002	0.03		0.05	2	0.1	0.04		1046.5	0.1			
3303-1	0.04	0.4	0.2		0.1	237.2			0.03	0.1	0.001	0.01		0.05	2	0.1	0.19		870.5	0.2			
3303-2	0.03	0.4	0.4		0.05	291.7			0.04	0.05	0.001	0.01		0.05	2	0.1	0.12		747.5	0.2			
3303-3	0.06	0.4	0.5		0.05	249.2			0.03	0.1	0.001	0.01		0.05	2	0.1	0.19		977.3	0.2			

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
3303-4	0.07	0.4	0.3		0.1	243.2			0.03	0.1	0.003	0.02		0.05	3	0.1	0.4		415.4	0.4			
3303-5	0.03	0.5	0.4		0.1	212.1			0.04	0.05	0.0005	0.1		0.05	2	0.1	0.24		786.8	0.2			
3304-1	0.07	0.5	0.3		0.1	293.6			0.01	0.2	0.001	0.04		0.05	4	0.1	0.45		949.6	0.6			
3304-2	0.09	0.6	0.3		0.2	445.4			0.05	0.5	0.003	0.07		0.05	6	0.1	0.94		851.5	0.3			
3304-3	0.07	0.5	0.2		0.1	393.3			0.06	0.2	0.002	0.02		0.05	4	0.1	0.42		1369	0.5			
3304-4	0.1	0.6	0.3		0.1	352.1			0.04	0.3	0.003	0.03		0.05	5	0.1	0.68		1301.5	0.6			
3304-5	0.06	0.6	0.3		0.1	437.8			0.05	0.3	0.001	0.01		0.05	5	0.1	0.65		1254.5	0.4			
3304-6	0.37	1.2	1.2		1.3	635.9			0.1	0.7	0.012	0.3		0.2	10	0.5	1.26		1227.7	2			
3305-1	0.04	0.5	0.4		0.05	419.7			0.06	0.1	0.0005	0.03		0.05	2	0.1	0.28		811	0.3			
3305-2	0.03	0.6	0.3		0.1	364.8			0.04	0.1	0.0005	0.01		0.05	2	0.1	0.2		507.2	0.2			
3305-3	0.45	0.4	0.1		0.05	331.2			0.06	0.05	0.0005	0.01		0.05	2	0.1	0.14		992.1	0.2			
3305-4	0.38	0.5	0.1		0.1	233.2			0.04	0.05	0.001	0.01		0.05	2	0.1	0.13		670.2	0.2			
3305-5	0.17	0.4	0.1		0.05	214.3			0.03	0.1	0.0005	0.01		0.05	2	0.1	0.16		975.2	0.3			
3306-1	0.07	0.4	0.1		0.05	376.8			0.06	0.05	0.0005	0.01		0.05	3	0.1	0.12		803.9	0.7			
3306-2	0.1	0.4	0.05		0.05	393.9			0.04	0.05	0.0005	0.01		0.05	1	0.1	0.19		823.2	0.1			
3306-3	0.08	0.3	0.05		0.05	232.9			0.02	0.05	0.001	0.01		0.05	1	0.1	0.1		635.9	0.1			
3306-4	0.12	0.4	0.05		0.05	285.9			0.02	0.05	0.001	0.01		0.05	1	0.1	0.16		975.4	0.1			
3306-5	0.2	0.4	0.1		0.1	261.6			0.05	0.05	0.001	0.01		0.05	1	0.1	0.15		1027.6	0.1			
3307-1	0.08	0.3	0.1		0.05	712			0.04	0.05	0.0005	0.01		0.05	1	0.1	0.07		1240.5	0.1			
3307-2	0.13	0.3	0.05		0.2	675.5			0.04	0.1	0.001	0.01		0.05	1	0.1	0.18		1296.4	0.1			
3307-3	0.34	0.4	0.05		0.1	670.5			0.06	0.05	0.001	0.01		0.05	1	0.1	0.07		711.8	0.2			
3307-4	0.1	0.3	0.05		0.05	487.8			0.02	0.05	0.001	0.01		0.05	1	0.1	0.06		842.8	0.1			
3307-5	0.15	0.2	0.05		0.05	710.1			0.05	0.05	0.001	0.01		0.05	1	0.1	0.07		1250.4	0.1			
3308-1	0.13	0.2	0.05		0.05	264.3			0.02	0.05	0.0005	0.01		0.05	1	0.1	0.06		781.6	0.1			
3308-2	0.13	0.3	0.05		0.2	342.3			0.02	0.05	0.0005	0.01		0.05	1	0.1	0.09		1299.9	0.1			
3308-3	0.16	0.3	0.05		0.05	315.2			0.02	0.05	0.002	0.01		0.05	1	0.1	0.13		882.4	0.1			
3308-4	0.08	0.5	0.05		0.3	202			0.04	0.1	0.003	0.08		0.05	1	0.1	0.15		788.1	0.2			
Till2	0.47	3.7	0.7	5.17	3	13.5	< .05	0.66	0.02	11.1	0.101	0.3	0.16	2.9	42	1.6	10.76	1.09	109.4	5.4	15	6	12.8
Till3	0.73	2.4	0.4	2.36	1.7	15.5	< .05	0.27	0.04	2.9	0.061	0.06	0.1	1	32	0.2	5.6	0.55	39	1.9	15	8.1	27.7
Till2	0.45	3.5	0.6	5.31	2.8	13	< .05	0.58	0.02	10.4	0.108	0.28	0.17	2.8	44	1.4	10.58	1.03	108.7	5	15	6	13.4
Till2	0.43	3.5	0.6	5.25	2.5	12.5	< .05	0.57	0.04	10.7	0.102	0.28	0.15	2.9	41	1.3	10.57	0.99	108.3	5	15	5.7	12.3
Till2	0.49	3.4	0.6	5.2	2.4	12.3	< .05	0.6	0.03	10.1	0.1	0.28	0.15	2.7	40	1.6	10.38	1.05	106.2	4.6	15	5.7	13.8
Till2	0.46	3.7	0.5	5.57	2.9	13.9	< .05	0.57	0.04	12.3	0.115	0.29	0.18	3	46	1.2	10.85	1.07	113.5	5.6	15	5	12.4
Till2	0.42	3.1	0.4	4.8	2.6	12.3	< .05	0.49	0.05	9.3	0.09	0.26	0.15	2.7	39	1.4	9.96	0.92	109.8	5.7	15	5.7	12.8
Till2	0.45	3.1	0.4	4.78	2.5	12.2	< .05	0.55	0.03	10.7	0.097	0.28	0.16	2.9	40	1.4	10.49	1.02	109.3	5.1	15	5.7	14.2
Till2	0.48	3	0.4	4.9	2.8	12.7	< .05	0.53	0.04	10.8	0.101	0.27	0.16	2.9	39	1.6	10.54	0.99	109.6	5	15	5.1	12.6

Appendix 4 - Group 1F and pH Analytical Results

Field Number	Sb_1F_ppm	Sc_1F_ppm	Se_1F_ppm	Sm_1F_ppm	Sn_1F_ppm	Sr_1F_ppm	Ta_1F_ppm	Tb_1F_ppm	Te_1F_ppm	Th_1F_ppm	Ti_1F_%	Tl_1F_ppm	Tm_1F_ppm	U_1F_ppm	V_1F_ppm	W_1F_ppm	Y_1F_ppm	Yb_1F_ppm	Zn_1F_ppm	Zr_1F_ppm	Sample_1F_g	pH	Conductivity uS/cm
Till2	0.45	3.1	0.5	4.71	2.8	12.4	< .05	0.51	0.03	10.4	0.098	0.28	0.15	2.8	38	1.5	10.11	0.99	106.9	4.8	15	5.4	12.8
Till2	0.47	3.2	0.3	4.9	2.7	13.3	< .05	0.53	0.04	11.3	0.103	0.28	0.17	2.9	41	1.4	10.96	1.09	110.3	4.6	15	5.6	13.7
Till2	0.46	3.2	0.4	5.2	2.7	12.2	< .05	0.52	< .02	10.5	0.085	0.27	0.16	3	39	1.1	10.71	0.94	108.6	6.5		5.6	15.8
Till2	0.45	3.7	0.5	4.91	2.4	12.7	< .05	0.56	0.05	10.4	0.098	0.28	0.15	2.7	39	1.4	10.3	0.98	104.4	4.8	15	6	13.2
Till3	0.65	2.5	0.3	2.32	1.7	15.8	< .05	0.28	0.04	2.9	0.061	0.05	0.08	1	33	0.2	5.69	0.52	43.7	2.2	15	6.9	26.2
NAT98-282	0.39	3	0.3	3.57	0.9	55.3	< .05	0.56	0.1	6.4	0.005	0.19	0.16	0.9	28	< .2	11.82	1.13	70.5	8.7	15	9.4	48.1
Till3	0.69	2.6	0.4	2.39	1.9	16.7	< .05	0.26	0.02	2.9	0.06	0.05	0.08	1.1	35	0.2	5.92	0.56	42.2	2.2	15	7.4	26.4
Till3	0.65	2.2	0.2	2.5	1.6	16.4	< .05	0.26	< .02	3.5	0.068	0.06	0.09	1.1	33	0.2	6.03	0.6	40.8	2	15	6.1	26.5
Till3	0.69	2.8	0.3	2.65	1.8	21.7	< .05	0.26	0.03	3.5	0.08	0.06	0.1	1.1	37	< .2	6.39	0.59	41.2	2.7	15	6.4	25.8
Till3	0.63	2.4	0.2	2.54	1.5	16.3	< .05	0.24	0.02	3	0.063	0.05	0.09	1	32	< .2	5.92	0.52	39.6	2.2	15	6.6	26.8
Till3	0.68	2.6	0.2	2.49	1.9	16.6	< .05	0.25	0.03	3.2	0.062	0.06	0.1	1.1	33	< .2	6.23	0.57	39	2	15	6.6	28.1
Till3	0.73	2.2	0.2	2.17	1.5	15.7	< .05	0.22	< .02	3	0.061	0.05	0.09	1	31	< .2	5.61	0.53	38.6	2	15	6.5	28
Till3	0.71	2.2	0.2	2.42	1.6	16.1	< .05	0.26	< .02	3.1	0.061	0.05	0.09	1.1	33	0.2	5.8	0.6	44.4	2.2	15	6.7	27.6
Till3	0.7	2.3	0.2	2.57	1.7	19.1	< .05	0.26	0.04	3.3	0.071	0.06	0.1	1	34	0.2	6.14	0.55	38.9	2.1	15	7	26.9
Till3	0.65	2.5	0.3	2.55	1.8	19.9	< .05	0.3	0.03	3.2	0.071	0.05	0.09	1	35	< .2	6.46	0.51	42.6	2.9	15	7.5	24
NAT98-282	0.44	3	0.4	3.9	0.8	57.7	< .05	0.55	0.09	6.5	0.007	0.18	0.18	0.9	30	< .2	12.72	1.15	74.4	9.1	15	9.8	49
NAT98-282	0.38	2.4	0.4	3.7	0.7	50.1	< .05	0.43	0.06	6	0.007	0.17	0.16	0.9	26	< .2	11.44	0.96	65.5	8	15	8.3	47.3
NAT98-282	0.44	2.7	0.4	3.9	0.8	55.2	< .05	0.48	0.05	6.7	0.01	0.18	0.18	1	29	< .2	11.77	1.11	67.9	8.6	15	8.2	48.7
NAT98-282	0.41	2.5	0.4	4.05	0.7	52.4	< .05	0.47	0.05	6.1	0.007	0.16	0.16	0.9	26	< .2	12.47	1.02	68.1	9.4	15	8.5	48.6
NAT98-282	0.45	2.6	0.4	3.91	0.7	52.7	< .05	0.47	0.04	6.4	0.007	0.17	0.16	0.9	22	< .2	12.4	1	66	9.9	15	8.3	48.6
NAT98-282	0.38	2.4	0.3	3.62	0.7	51.6	< .05	0.45	0.04	6.4	0.008	0.16	0.17	0.9	29	< .2	11.47	1.09	66.3	7.5	15	8.3	48.8
NAT98-282	0.41	2.3	0.3	3.63	0.7	51.8	< .05	0.47	0.03	6.2	0.007	0.16	0.17	0.9	24	< .2	11.76	1.16	67.8	9	15	8.4	49.8
NAT98-282	0.46	2.4	0.3	3.93	0.7	53.8	< .05	0.46	0.06	6.1	0.009	0.2	0.18	1	27	< .2	12.62	0.96	70.6	8.3		8.4	50.8
NAT98-282	0.43	3.1	0.4	3.96	0.9	55.9	< .05	0.54	0.05	6.5	0.006	0.17	0.16	1	36	< .2	12.52	1.02	76.9	10	15	9.3	47.8
NAT98-282	0.44	3	0.4	3.92	0.9	57.2	< .05	0.48	0.07	6.3	0.006	0.19	0.19	1	31	< .2	12.28	1.08	73.6	9.2	15	9.1	49.8
NAT98-282	0.43	3.1	0.4	3.85	0.8	56.8	< .05	0.5	0.04	6.6	0.008	0.19	0.16	1	31	< .2	12.21	1.06	73.5	9.2	15	9.4	48.1

Appendix 5 – Enzyme Leach Analytical Results

ENZ – Enzyme Leach

Sample Type

N	Normal
FD	Field duplicate
SD	Sample duplicate
LD	Lab duplicate
STD	Standard

Field Number	Actlabs ID	Actlabs File	Sample Type (Actlabs batch)	Ag_ENZ_ppb	Al_ENZ_ppm	As_ENZ_ppb	Au_ENZ_ppb	Ba_ENZ_ppb	Be_ENZ_ppb	Bi_ENZ_ppb	Br_ENZ_ppb	Ca_ENZ_ppm	Cd_ENZ_ppb	Ce_ENZ_ppb	Cl_ENZ_ppb	Co_ENZ_ppb	Cr_ENZ_ppb	Cs_ENZ_ppb	Cu_ENZ_ppb	Dy_ENZ_ppb	Er_ENZ_ppb	Eu_ENZ_ppb
5001	2294	20939	N	0.05	1.30	102.00	0.00	535.00	0.78	7.32	21.10	246.00	0.56	27.50	14.70	8.81	31.50	0.01	69.60	2.05	1.72	0.60
5002	2295	20939	N	0.05	4.33	77.00	0.07	1910.00	1.57	10.70	96.40	817.00	4.36	14.20	33.10	14.20	45.10	0.22	96.60	2.15	1.01	0.51
5003	2296	20939	N	0.05	2.00	85.80	0.03	1210.00	0.44	4.98	49.40	489.00	2.33	9.62	29.60	11.30	47.70	0.01	74.60	1.61	0.84	0.43
5004	2297	20939	SD	0.05	3.21	72.10	0.01	1360.00	0.45	5.48	60.90	747.00	2.52	11.00	26.60	9.98	39.30	0.12	87.30	1.25	0.84	0.47
5005	2298	20939	N	0.05	6.41	73.60	0.01	841.00	0.47	0.56	26.40	199.00	0.78	24.10	11.00	17.20	1.50	0.68	119.00	2.63	1.87	0.79
5006	2299	20939	N	0.05	2.11	87.40	0.00	536.00	0.88	2.22	27.90	163.00	1.42	13.20	6.77	14.90	18.90	0.01	51.20	1.15	1.26	0.38
5007	2300	20939	N	0.05	3.44	81.70	0.01	1130.00	1.00	4.06	52.40	248.00	1.03	17.70	31.80	20.20	37.70	0.03	37.60	1.96	1.45	0.51
5008	2301	20939	FD	0.05	2.12	49.00	0.04	1660.00	0.54	5.15	55.90	504.00	2.26	14.60	21.40	11.00	42.60	0.01	78.60	1.75	1.09	0.55
5009	2302	20939	N	0.05	3.35	65.40	0.02	1460.00	1.29	3.06	81.00	534.00	2.31	16.30	28.60	23.80	53.90	0.18	245.00	2.12	1.17	0.60
5010	2303	20939	N	0.05	4.15	75.40	0.04	1850.00	0.67	4.53	44.70	690.00	2.05	13.00	17.60	6.75	40.70	0.13	158.00	1.70	1.02	0.51
5010	2304	20939	LD	0.05	3.15	72.70	0.01	1110.00	0.57	3.49	39.10	528.00	1.09	28.20	11.40	6.38	24.60	0.18	130.00	1.11	1.14	0.43
5011	2305	20939	N	0.05	2.97	88.60	0.00	316.00	0.79	2.22	68.40	411.00	5.47	6.25	15.80	6.26	16.60	0.19	62.90	0.46	0.46	0.19
5013	2307	20939	N	0.05	4.08	72.60	0.01	574.00	1.56	3.52	62.50	250.00	1.01	22.00	29.60	7.49	34.10	0.41	91.70	1.97	1.20	0.45
5014	2308	20939	N	0.05	2.16	32.80	0.04	1010.00	0.32	3.23	69.00	753.00	0.67	12.20	30.00	9.34	27.80	0.17	72.80	1.10	0.79	0.31
5015	2309	20939	N	0.13	1.64	16.30	0.14	864.00	0.57	2.94	163.00	2310.00	0.57	9.12	48.20	10.80	22.80	0.01	36.30	0.58	0.48	0.25
5016	2310	20939	SD	0.05	2.36	22.60	0.19	1490.00	0.64	2.82	204.00	2170.00	1.21	14.70	64.60	13.00	50.20	0.01	57.10	1.03	0.56	0.37
5017	2311	20939	N	0.05	2.11	18.40	0.08	1510.00	0.25	4.20	116.00	773.00	0.81	6.77	30.00	6.81	36.70	0.01	60.40	1.02	0.40	0.29
5018	2312	20939	N	0.05	2.10	31.20	0.05	957.00	0.60	3.10	71.70	497.00	0.89	9.04	24.70	10.40	28.70	0.20	94.60	0.98	0.65	0.25
5019	2313	20939	N	0.05	3.47	36.90	0.08	1640.00	0.38	3.90	109.00	689.00	1.78	9.88	29.80	14.40	34.30	0.41	110.00	1.32	0.66	0.30
5020	2314	20939	FD	0.05	2.26	67.00	0.04	1320.00	0.63	1.62	63.90	606.00	2.29	11.90	33.50	8.77	52.10	0.02	150.00	1.58	1.02	0.46
5021	2315	20939	N	0.05	1.29	20.10	0.02	997.00	0.52	1.05	30.70	690.00	0.77	6.63	28.90	7.07	39.10	0.01	195.00	0.66	0.41	0.27
5022	2316	20939	N	0.05	2.90	234.00	0.01	634.00	0.42	2.09	54.20	585.00	1.38	8.97	17.90	13.30	33.60	0.10	69.70	1.05	0.62	0.31
5023	2317	20939	N	0.05	0.99	136.00	0.01	677.00	0.70	1.28	42.00	303.00	1.45	8.33	27.20	10.20	32.20	0.08	130.00	0.80	0.77	0.26
5023	2318	20939	LD	0.05	4.66	102.00	0.02	833.00	1.78	2.44	34.80	267.00	2.17	21.90	11.60	18.20	28.30	0.48	139.00	3.43	1.63	0.53
5025	2320	20939	N	0.05	1.85	16.80	0.10	809.00	0.30	1.54	71.10	3000.00	1.54	13.00	27.30	16.00	35.00	0.25	40.50	0.89	0.61	0.39
5026	2321	20939	N	0.05	3.77	163.00	0.14	346.00	0.73	1.56	58.70	240.00	1.02	6.68	22.30	1.79	1.50	0.10	60.10	0.60	0.32	0.13
7001	2000	20939	N	0.05	11.20	13.90	0.01	500.00	2.01	12.10	130.00	161.00	0.29	16.70	31.10	52.80	85.30	0.50	20.40	0.94	0.55	0.26
7002	2001	20939	N	0.05	29.60	26.00	0.08	1950.00	5.88	13.00	234.00	243.00	1.88	54.10	40.60	17.40	153.00	1.55	50.50	5.26	1.82	1.13
7003	2002	20939	N	0.05	36.20	24.90	0.00	898.00	2.09	8.51	119.00	220.00	0.39	29.30	5.41	22.20	104.00	2.05	47.10	1.57	1.13	0.57
7004	2004	20939	LD	0.05	33.00	18.50	0.08	970.00	3.27	5.21	140.00	246.00	0.96	47.00	6.17	15.20	119.00	1.28	53.80	3.86	1.40	1.01
7004	2003	20939	SD	0.05	33.60	21.10	0.05	706.00	3.02	5.59	142.00	178.00	0.05	43.90	11.20	15.10	90.20	2.13	46.50	2.65	1.52	0.70
7005	2006	20939	N	0.05	7.82	10.20	0.00	1100.00	1.98	3.92	58.40	162.00	1.13	7.25	0.50	31.10	81.60	0.28	12.40	0.59	0.25	0.29
7006	2007	20939	N	0.05	21.20	21.10	0.01	744.00	2.67	3.41	130.00	204.00	0.43	39.70	0.50	15.00	84.10	0.89	34.30	3.14	1.52	0.85
7007	2008	20939	N	0.05	11.30	30.20	0.02	603.00	1.93	5.16	202.00	238.00	0.82	40.10	33.50	24.00	93.90	0.17	37.00	5.91	2.19	1.06
7008	2009	20939	FD	0.05	18.40	17.00	0.05	1180.00	3.35	2.06	134.00	234.00	0.89	44.90	0.50	19.90	103.00	0.68	34.70	3.21	1.30	0.90

Field Number	Actlabs ID	Actlabs File	Sample Type (Actlabs batch)	Ag_ENZ_ppb	Al_ENZ_ppm	As_ENZ_ppb	Au_ENZ_ppb	Ba_ENZ_ppb	Be_ENZ_ppb	Bi_ENZ_ppb	Br_ENZ_ppb	Ca_ENZ_ppm	Cd_ENZ_ppb	Ce_ENZ_ppb	Cl_ENZ_ppb	Co_ENZ_ppb	Cr_ENZ_ppb	Cs_ENZ_ppb	Cu_ENZ_ppb	Dy_ENZ_ppb	Er_ENZ_ppb	Eu_ENZ_ppb
7009	2010	20939	N	0.05	34.30	15.30	0.07	1530.00	5.47	3.53	137.00	318.00	1.35	78.50	19.70	37.80	142.00	1.33	54.50	7.81	2.43	1.49
7010	2011	20939	N	0.05	13.20	25.20	0.03	1210.00	3.26	3.41	155.00	237.00	0.49	75.50	39.00	17.90	119.00	0.30	104.00	11.70	3.99	1.83
7011	2012	20939	N	0.05	14.10	12.40	0.02	994.00	4.42	1.46	83.10	141.00	0.99	22.40	5.13	23.70	68.00	0.42	24.00	1.27	0.66	0.40
7013	2013	20939	N	0.05	61.00	29.70	0.12	992.00	4.72	2.79	176.00	212.00	1.64	87.20	14.70	18.20	162.00	2.50	139.00	18.80	5.41	3.32
7014	2014	20939	N	0.05	31.30	20.10	0.08	1190.00	8.25	3.05	149.00	209.00	1.09	109.00	22.50	25.40	130.00	1.51	59.10	13.00	3.49	1.81
7015	2015	20939	N	0.05	5.76	19.70	0.00	590.00	0.43	1.42	137.00	119.00	0.15	25.40	0.50	19.40	56.80	0.10	8.66	0.95	0.49	0.29
7016	2017	20939	LD	0.05	8.89	28.80	0.07	967.00	1.69	2.37	271.00	185.00	0.81	16.50	37.80	40.00	105.00	0.27	12.80	1.49	0.55	0.41
7016	2016	20939	SD	0.05	5.97	26.90	0.02	595.00	0.43	1.15	138.00	154.00	0.31	15.30	3.10	21.80	72.00	0.13	10.70	0.98	0.53	0.37
7017	2019	20939	N	0.05	47.50	23.30	0.12	1510.00	3.42	3.07	342.00	246.00	1.22	50.80	32.90	45.60	130.00	2.07	49.30	8.70	3.15	1.51
7018	2020	20939	N	0.05	41.20	17.20	0.06	1270.00	7.09	2.46	212.00	211.00	0.42	75.00	27.20	20.00	121.00	2.71	39.40	5.75	2.10	0.89
7019	2021	20939	N	0.05	16.80	21.80	0.07	935.00	3.16	2.81	358.00	309.00	1.13	75.60	39.20	24.90	122.00	0.58	84.20	13.60	3.83	2.18
7020	2022	20939	FD	0.05	46.50	16.90	0.01	722.00	4.97	1.61	158.00	414.00	0.94	42.10	0.50	43.10	83.70	2.85	36.90	2.66	1.62	0.76
7021	2034	20939	N	0.05	18.70	18.20	0.01	1430.00	2.87	0.95	149.00	433.00	0.60	43.40	15.60	42.80	71.00	1.06	30.90	2.41	1.27	0.65
7022	2035	20939	N	0.05	52.20	22.70	0.10	1550.00	8.87	1.75	349.00	352.00	1.18	103.00	35.30	89.50	133.00	3.10	55.10	11.10	3.96	1.91
7023	2036	20939	N	0.05	17.80	15.00	0.03	743.00	4.38	0.25	89.30	208.00	0.22	81.10	0.50	16.10	61.90	0.78	33.20	4.71	2.36	1.07
7025	2037	20939	N	0.05	18.50	15.50	0.02	880.00	1.88	0.82	66.10	266.00	0.18	82.40	0.50	20.90	68.80	1.02	24.30	4.83	2.63	1.17
7026	2038	20939	N	0.05	19.40	21.60	0.04	1330.00	2.08	1.06	134.00	519.00	1.21	33.80	21.20	43.70	131.00	0.34	33.90	4.02	1.22	1.74
7027	2039	20939	N	0.05	19.20	22.10	0.04	1180.00	2.25	0.64	101.00	420.00	0.53	57.10	11.90	73.30	104.00	0.52	31.10	5.03	2.36	1.30
7028	2041	20939	LD	0.05	25.20	21.10	0.02	1280.00	3.51	1.08	201.00	296.00	0.78	78.10	33.20	53.40	85.10	1.09	44.30	12.80	4.92	2.17
7028	2040	20939	SD	0.05	14.80	19.60	0.02	973.00	2.74	0.25	150.00	288.00	0.46	79.80	25.40	38.30	73.90	0.50	33.30	10.50	5.12	1.95
7029	2043	20939	N	0.05	0.05	35.20	0.19	2530.00	12.00	4.10	195.00	601.00	2.24	152.00	21.80	49.10	288.00	12.40	82.30	13.60	4.19	3.16
7030	2044	20939	N	0.05	6.22	27.80	0.09	660.00	0.90	0.59	190.00	492.00	0.37	37.60	16.90	12.30	66.80	0.18	50.60	5.40	3.60	1.62
7031	2045	20939	N	0.05	5.49	28.80	0.01	601.00	1.04	0.58	113.00	556.00	0.53	21.90	11.90	19.50	76.60	0.01	38.10	4.42	2.55	1.45
7032	2046	20939	FD	0.05	8.28	31.60	0.03	576.00	1.90	22.00	195.00	396.00	1.05	43.60	14.90	25.10	94.20	0.12	56.30	10.80	5.78	3.06
7033	2047	20939	N	0.05	8.85	20.10	0.02	1040.00	1.78	21.50	146.00	345.00	0.63	47.50	28.20	30.80	94.10	0.11	28.60	8.57	2.48	1.56
7034	2048	20939	N	0.05	3.09	16.70	0.01	983.00	0.30	10.80	106.00	357.00	0.17	17.40	0.50	14.80	52.70	0.01	26.60	2.39	1.40	0.84
7035	2049	20939	N	0.05	11.70	13.00	0.06	960.00	3.10	9.30	322.00	242.00	1.05	78.00	26.60	47.90	80.20	0.32	53.20	12.10	4.21	1.93
7037	2050	20939	N	0.05	8.54	12.70	0.00	1500.00	1.15	4.60	82.30	196.00	0.27	24.20	9.72	46.40	67.10	0.17	16.00	1.14	0.61	0.47
7038	2051	20939	N	0.05	14.10	22.70	0.08	1400.00	2.89	12.10	303.00	380.00	1.69	69.50	34.50	48.60	100.00	0.19	43.30	8.40	2.73	1.49
7039	2052	20939	N	0.05	37.50	18.90	0.05	1230.00	4.10	7.64	630.00	243.00	0.99	75.60	33.20	51.20	104.00	1.68	39.00	8.00	2.97	1.40
7040	2054	20939	LD	0.05	31.30	22.20	0.03	807.00	2.70	3.70	370.00	251.00	0.34	98.80	0.50	35.70	73.20	1.10	44.90	6.48	3.51	1.86
7040	2053	20939	SD	0.05	27.60	19.70	0.04	730.00	2.46	4.47	362.00	235.00	0.53	106.00	3.36	25.80	75.60	1.22	46.80	6.55	4.29	1.86
7041	2056	20939	N	0.05	19.90	31.60	0.03	1070.00	1.82	7.49	198.00	362.00	0.73	47.40	36.10	24.00	118.00	0.71	30.70	12.60	5.01	2.52
7042	2057	20939	N	0.05	7.67	16.00	0.04	660.00	0.46	6.68	293.00	990.00	0.34	9.05	26.70	11.80	70.90	0.53	39.50	1.35	0.67	0.29
7043	2058	20939	N	0.05	47.40	25.60	0.08	1120.00	3.29	4.40	146.00	294.00	0.98	67.10	25.60	20.40	131.00	1.45	42.90	5.78	2.14	1.08

Field Number	Actlabs ID	Actlabs File	Sample Type (Actlabs batch)	Ag_ENZ_ppb	Al_ENZ_ppm	As_ENZ_ppb	Au_ENZ_ppb	Ba_ENZ_ppb	Be_ENZ_ppb	Bi_ENZ_ppb	Br_ENZ_ppb	Ca_ENZ_ppm	Cd_ENZ_ppb	Ce_ENZ_ppb	Cl_ENZ_ppb	Co_ENZ_ppb	Cr_ENZ_ppb	Cs_ENZ_ppb	Cu_ENZ_ppb	Dy_ENZ_ppb	Er_ENZ_ppb	Eu_ENZ_ppb
7044	2059	20939	FD	0.05	22.30	32.10	0.03	899.00	2.73	4.15	142.00	225.00	2.23	86.00	30.40	41.90	85.40	0.78	43.70	7.71	3.11	1.44
7045	2060	20939	N	0.05	6.19	34.60	0.04	486.00	2.06	4.61	199.00	417.00	1.02	43.30	35.80	43.90	85.60	0.11	68.70	13.00	5.26	2.52
7046	2061	20939	N	0.05	5.22	19.10	0.01	160.00	1.48	2.25	142.00	478.00	0.17	37.50	4.65	11.60	56.90	0.01	84.10	11.20	6.16	3.18
7047	2062	20939	N	0.05	6.28	42.90	0.04	281.00	1.53	1.93	121.00	267.00	0.14	25.00	36.00	12.30	77.70	0.14	48.80	4.86	2.93	1.30
7049	2063	20939	N	0.05	6.22	34.30	0.00	131.00	1.81	1.95	87.80	294.00	0.27	50.50	6.31	13.90	61.40	0.02	40.70	7.80	4.16	2.16
7050	2064	20939	N	0.05	4.91	20.80	0.03	216.00	0.66	1.47	74.80	262.00	0.11	28.10	10.30	24.70	52.00	0.06	49.20	3.61	2.19	1.04
7051	2065	20939	N	0.05	40.50	14.60	0.05	1180.00	5.43	2.95	129.00	200.00	0.90	73.00	35.60	9.05	108.00	1.88	71.40	7.34	3.51	1.82
7052	2067	20939	LD	0.05	55.10	15.60	0.07	1410.00	8.02	3.50	141.00	302.00	0.72	101.00	27.40	12.40	126.00	2.59	78.00	10.90	4.21	2.48
7052	2066	20939	SD	0.05	42.60	17.90	0.05	878.00	4.88	2.46	123.00	202.00	0.66	86.90	28.20	8.28	115.00	1.87	78.30	9.30	4.25	2.24
7053	2069	20939	N	0.05	7.63	30.20	0.05	283.00	1.19	1.46	128.00	363.00	0.05	28.10	34.10	30.70	84.00	0.25	28.40	3.41	1.64	0.84
7054	2070	20939	N	0.05	5.98	25.90	0.02	219.00	1.47	1.80	243.00	379.00	0.05	26.90	24.00	15.10	65.60	0.10	90.00	6.65	3.96	1.94
7055	2071	20939	N	0.05	18.40	13.30	0.02	550.00	2.03	1.01	74.40	121.00	0.21	35.40	0.50	21.00	56.80	1.12	33.00	1.90	1.34	0.66
7056	2072	20939	FD	0.05	26.00	15.20	0.03	567.00	4.38	0.95	77.00	114.00	0.43	55.80	5.50	24.50	82.20	0.96	42.70	2.80	1.62	0.94
7057	2073	20939	N	0.05	36.10	16.00	0.04	1190.00	4.71	1.68	230.00	231.00	0.34	56.50	31.90	40.80	115.00	1.14	49.40	6.62	2.13	1.22
7058	2074	20939	N	0.05	24.20	15.90	0.03	910.00	2.68	1.10	138.00	271.00	0.36	52.30	0.50	23.40	91.50	0.91	43.20	4.21	1.89	1.11
7059	2075	20939	N	0.05	48.70	37.90	0.08	550.00	5.50	2.53	259.00	337.00	2.65	42.50	40.50	17.40	132.00	1.76	94.20	4.57	1.77	0.96
7061	2076	20939	N	0.05	57.40	17.10	0.11	544.00	7.03	2.38	271.00	144.00	0.69	90.90	28.90	18.40	129.00	2.96	80.40	10.40	3.68	1.87
7062	2077	20939	N	0.05	5.87	30.10	0.02	422.00	1.31	0.96	114.00	259.00	0.17	39.10	3.63	11.00	64.40	0.01	49.80	5.79	2.94	1.58
7063	2078	20939	N	0.05	10.30	33.40	0.02	465.00	2.60	1.14	271.00	582.00	0.92	39.80	20.90	7.92	117.00	0.01	78.00	10.50	4.18	2.51
7064	2080	20939	LD	0.05	6.66	30.10	0.00	303.00	0.83	0.74	181.00	406.00	0.31	37.30	4.56	5.18	57.10	0.01	49.90	7.11	4.11	2.15
7064	2079	20939	SD	0.05	5.55	29.10	0.03	284.00	1.49	1.10	198.00	395.00	0.22	37.20	15.90	5.06	51.60	0.01	52.40	6.54	4.67	2.05
7065	2082	20939	N	0.05	41.10	21.30	0.03	1190.00	4.43	1.94	231.00	333.00	0.78	59.60	29.90	35.30	117.00	1.28	53.30	11.10	3.53	2.19
7066	2083	20939	N	0.05	46.90	18.70	0.09	457.00	6.72	1.69	430.00	210.00	1.69	112.00	27.00	14.40	154.00	1.66	120.00	16.10	5.09	3.48
7067	2084	20939	N	0.05	33.40	23.00	0.05	404.00	5.01	2.28	265.00	141.00	0.34	178.00	8.83	11.60	95.10	2.02	117.00	17.30	7.82	3.91
7068	2085	20939	FD	0.05	25.40	17.60	0.03	424.00	5.58	1.13	184.00	121.00	0.55	169.00	6.84	20.00	79.20	1.36	112.00	13.60	7.66	3.77
7142	2172	20939	N	0.05	8.22	15.30	0.04	422.00	5.84	1.34	146.00	16.40	0.21	148.00	14.30	14.10	43.10	1.52	99.60	33.30	9.99	5.07
7143	2173	20939	N	0.05	3.93	9.84	0.02	377.00	4.54	0.79	63.20	23.80	0.36	148.00	1.14	9.67	22.70	0.68	76.90	14.50	8.78	4.07
7144	2174	20939	N	0.05	1.32	56.60	0.01	596.00	0.42	3.22	199.00	605.00	0.28	11.80	28.90	13.00	46.30	0.22	30.10	2.21	0.58	0.40
7145	2175	20939	N	0.05	0.82	23.40	0.02	84.90	0.31	0.97	130.00	79.30	0.05	20.80	10.10	15.70	23.40	0.01	61.10	2.46	1.69	0.58
7146	2176	20939	N	0.05	3.52	5.95	0.01	610.00	6.49	0.25	72.60	23.80	0.55	85.50	13.00	27.90	34.10	0.23	29.10	8.33	3.13	1.57
7147	2177	20939	N	0.05	4.77	8.35	0.01	674.00	5.79	0.61	69.10	22.90	0.17	112.00	12.20	38.90	31.20	0.57	37.60	12.60	4.38	2.04
7148	2178	20939	FD	0.05	3.73	2.51	0.00	597.00	6.52	0.25	47.00	11.60	0.05	142.00	0.50	14.30	20.20	0.17	37.00	7.33	3.74	1.83
7149	2179	20939	SD	0.05	6.01	3.49	0.02	669.00	8.33	0.25	53.20	21.40	0.33	159.00	0.50	25.30	25.10	0.37	38.80	9.01	3.47	2.27
7149	2180	20939	LD	0.05	7.25	4.33	0.01	614.00	7.72	0.25	40.10	15.20	0.05	150.00	0.50	18.40	25.40	0.73	39.10	6.76	3.36	1.93
7152	2182	20939	N	0.05	7.25	9.78	0.01	471.00	6.42	0.25	49.10	19.00	0.12	62.90	10.10	15.40	33.10	1.54	41.20	5.55	3.20	1.62

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Actlabs ID	Actlabs File	Sample Type (Actlabs batch)	Ag_ENZ_ppb	Al_ENZ_ppm	As_ENZ_ppb	Au_ENZ_ppb	Ba_ENZ_ppb	Be_ENZ_ppb	Bi_ENZ_ppb	Br_ENZ_ppb	Ca_ENZ_ppm	Cd_ENZ_ppb	Ce_ENZ_ppb	Cl_ENZ_ppb	Co_ENZ_ppb	Cr_ENZ_ppb	Cs_ENZ_ppb	Cu_ENZ_ppb	Dy_ENZ_ppb	Er_ENZ_ppb	Eu_ENZ_ppb
7153	2183	20939	N	0.05	4.15	31.40	0.01	1190.00	4.36	0.67	72.50	119.00	0.10	49.40	15.20	55.30	37.10	0.48	46.40	17.70	6.67	3.02
7154	2184	20939	N	0.05	8.15	10.50	0.02	495.00	4.29	5.12	68.20	28.20	0.05	46.10	30.40	13.20	43.70	1.68	29.60	6.64	3.17	1.66
7155	2185	20939	N	0.05	3.19	27.10	0.01	582.00	2.02	13.20	68.90	81.90	4.19	76.60	16.20	46.40	29.50	0.01	99.50	11.40	10.40	3.07
7156	2186	20939	N	0.05	7.61	16.90	0.01	354.00	3.48	4.45	71.10	30.10	0.17	82.70	13.30	6.45	30.10	1.07	38.80	6.57	5.92	1.89
7157	2187	20939	N	0.05	18.50	20.20	0.08	706.00	5.03	8.69	114.00	33.80	0.44	109.00	20.30	18.60	54.70	2.43	48.80	15.00	6.78	2.30
7158	2188	20939	N	0.05	5.85	21.40	0.03	475.00	3.17	7.38	120.00	35.40	1.08	91.30	19.10	6.36	43.90	0.50	38.90	14.90	5.67	2.22
7159	2189	20939	N	0.05	9.76	14.90	0.05	393.00	4.60	4.55	112.00	22.00	0.54	112.00	21.10	12.30	40.50	1.92	51.90	13.70	7.03	3.12
7160	2190	20939	N	0.05	10.90	14.00	0.02	249.00	5.03	3.11	42.60	18.90	0.20	73.60	15.40	17.00	33.40	2.31	36.50	5.54	4.43	1.76
7161	2191	20939	N	0.05	6.90	10.20	0.02	413.00	3.48	2.44	44.10	27.60	0.29	93.60	1.49	24.00	30.40	0.57	30.60	5.25	2.89	1.53
7162	2192	20939	FD	0.05	10.00	13.00	0.03	791.00	4.16	3.90	116.00	56.70	0.88	104.00	19.70	25.90	54.90	0.67	42.70	7.10	2.65	1.61
7163	2193	20939	SD	0.05	7.12	11.80	0.01	431.00	2.62	2.59	65.80	28.90	0.22	89.50	2.54	21.50	26.20	0.70	25.80	4.55	2.82	1.17
7163	2194	20939	LD	0.05	10.90	13.70	0.02	1000.00	7.07	3.55	119.00	47.30	1.30	80.00	25.50	45.40	47.50	0.88	28.60	6.80	2.38	1.09
7166	2196	20939	N	0.05	5.73	7.72	0.00	168.00	4.06	0.85	38.70	15.20	0.05	48.30	13.60	13.20	28.60	0.76	21.70	2.21	2.34	0.94
7167	2197	20939	N	0.05	13.20	12.90	0.05	359.00	9.12	4.68	132.00	19.00	1.14	99.50	31.30	19.60	53.60	3.16	96.30	13.60	7.61	3.18
7168	2198	20939	N	0.05	4.82	12.60	0.00	376.00	2.37	1.63	53.00	27.00	0.12	35.20	6.10	9.31	28.10	0.30	22.00	1.53	1.19	0.71
7169	2199	20939	N	0.05	8.24	7.95	0.03	579.00	4.79	2.08	105.00	36.00	0.21	136.00	15.20	21.80	49.00	0.62	44.30	13.20	6.35	3.37
7170	2200	20939	N	0.05	8.84	5.92	0.02	821.00	9.21	2.86	108.00	24.10	0.51	118.00	28.60	111.00	51.10	0.73	29.00	7.77	2.96	1.70
7171	2201	20939	N	0.05	16.20	23.50	0.05	702.00	4.61	1.83	69.00	1.93	0.86	152.00	4.27	22.70	40.70	2.21	149.00	21.10	16.90	8.45
7172	2202	20939	N	0.05	8.50	11.40	0.00	261.00	8.43	1.18	112.00	13.10	0.22	121.00	6.43	12.60	30.20	0.86	61.20	9.77	7.97	2.98
7173	2203	20939	N	0.05	5.98	5.47	0.00	313.00	2.72	0.64	52.20	19.70	0.24	76.00	3.00	13.60	26.90	0.55	16.80	2.59	2.31	1.08
7174	2204	20939	N	0.05	6.11	8.53	0.00	276.00	6.12	1.12	65.20	19.90	0.26	100.00	3.64	23.20	26.00	0.59	47.90	6.59	5.41	2.15
7175	2205	20939	N	0.05	11.50	17.90	0.02	338.00	5.49	1.69	140.00	26.60	0.41	161.00	20.00	15.70	40.40	2.05	95.00	13.30	10.10	3.89
7176	2206	20939	FD	0.05	12.50	13.80	0.02	273.00	4.45	0.86	111.00	24.10	0.67	136.00	10.10	13.40	45.50	1.34	126.00	16.10	9.69	5.26
7177	2207	20939	SD	0.05	13.20	14.10	0.05	460.00	7.69	2.28	180.00	36.10	0.85	168.00	18.40	19.60	55.80	1.61	128.00	34.80	13.80	7.60
7177	2208	20939	LD	0.05	6.99	13.90	0.03	372.00	6.08	2.40	193.00	35.80	0.95	145.00	20.80	18.60	44.50	1.08	126.00	22.00	12.00	5.81
7180	2210	20939	N	0.05	13.20	17.10	0.04	704.00	8.12	2.78	260.00	77.70	0.93	286.00	33.20	50.40	62.30	1.51	94.90	23.50	10.10	4.08
7181	2023	20939	N	0.05	10.50	20.50	0.03	760.00	3.94	1.67	189.00	314.00	0.26	107.00	25.50	32.40	85.40	0.17	49.40	17.90	8.85	3.50
7182	2024	20939	N	0.05	34.50	19.00	0.10	746.00	5.49	1.12	212.00	276.00	1.39	116.00	13.50	20.40	131.00	1.18	71.00	25.50	9.29	4.67
7183	2025	20939	N	0.05	8.41	22.50	0.21	747.00	0.71	1.36	206.00	1070.00	1.07	10.50	27.90	35.20	97.10	0.37	61.80	1.95	0.64	0.36
7184	2026	20939	SD	0.05	4.02	18.30	0.12	379.00	0.26	0.68	122.00	791.00	0.61	8.26	1.14	35.10	60.20	0.19	62.30	1.22	0.56	0.37
7184	2027	20939	LD	0.05	6.05	18.80	0.14	559.00	0.45	0.64	157.00	1020.00	0.85	8.78	16.10	37.90	92.90	0.22	72.20	1.57	0.60	0.38
7185	2029	20939	N	0.05	5.35	23.90	0.11	755.00	1.73	1.49	368.00	665.00	1.18	22.10	25.70	22.30	84.70	0.11	62.10	11.00	3.80	1.84
7186	2030	20939	N	0.05	20.80	19.50	0.08	904.00	7.15	1.29	182.00	318.00	1.58	112.00	33.60	38.70	111.00	0.63	115.00	33.60	10.10	5.05
7187	2031	20939	N	0.05	6.75	25.80	0.01	979.00	1.60	1.06	216.00	337.00	0.28	24.60	15.10	19.80	80.10	0.08	42.10	2.46	1.56	0.82
7188	2032	20939	N	0.05	15.00	51.60	0.03	1040.00	3.54	0.74	154.00	419.00	0.60	126.00	11.00	41.50	78.80	0.36	43.90	7.86	3.91	1.63

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Actlabs ID	Actlabs File	Sample Type (Actlabs batch)	Ag_ENZ_ppb	Al_ENZ_ppm	As_ENZ_ppb	Au_ENZ_ppb	Ba_ENZ_ppb	Be_ENZ_ppb	Bi_ENZ_ppb	Br_ENZ_ppb	Ca_ENZ_ppm	Cd_ENZ_ppb	Ce_ENZ_ppb	Cl_ENZ_ppb	Co_ENZ_ppb	Cr_ENZ_ppb	Cs_ENZ_ppb	Cu_ENZ_ppb	Dy_ENZ_ppb	Er_ENZ_ppb	Eu_ENZ_ppb
7189	2033	20939	N	0.05	7.01	30.10	0.13	1450.00	2.09	0.88	264.00	361.00	0.24	25.60	41.20	45.40	86.70	0.19	85.40	14.40	5.56	1.98
7194	2211	20939	N	0.05	8.88	4.47	0.01	1030.00	4.58	1.79	64.50	46.00	3.39	29.60	29.50	43.80	39.70	0.44	8.42	2.50	1.07	0.54
7195	2212	20939	N	0.05	3.06	10.70	0.00	285.00	4.35	0.70	42.20	38.40	0.61	11.00	14.90	20.00	27.90	0.01	9.99	0.43	0.42	0.23
7196	2213	20939	N	0.05	3.37	28.30	0.01	268.00	2.15	0.55	80.80	80.70	0.34	41.00	22.80	11.30	37.20	0.01	82.30	10.20	7.03	3.34
7197	2214	20939	N	0.05	4.27	26.10	0.03	254.00	7.66	1.28	83.70	64.80	0.37	99.60	27.10	10.30	44.40	0.01	86.30	27.90	11.80	4.79
7198	2215	20939	N	0.05	4.87	6.36	0.01	191.00	7.57	0.25	67.60	21.80	0.33	45.80	23.20	23.30	40.40	0.34	26.10	7.14	2.55	1.44
7199	2216	20939	N	0.05	2.28	22.60	0.00	167.00	2.59	0.99	41.90	48.10	0.17	131.00	7.71	36.00	19.20	0.01	64.70	12.00	7.13	3.13
7200	2217	20939	N	0.05	6.97	18.30	0.03	498.00	3.60	1.76	113.00	90.90	1.09	61.60	31.80	25.30	52.50	0.36	53.90	14.70	6.40	2.72
7201	2218	20939	N	0.05	11.60	18.90	0.04	497.00	4.81	0.92	109.00	83.10	0.58	128.00	27.60	58.80	58.30	1.08	69.70	21.50	10.40	4.15
7202	2219	20939	N	0.05	2.86	28.30	0.00	185.00	3.62	0.91	106.00	87.10	0.36	80.20	23.50	17.90	34.20	0.01	87.20	14.50	11.60	4.36
7203	2220	20939	FD	0.05	3.02	16.20	0.01	182.00	3.28	0.70	89.30	71.90	0.14	84.00	17.40	15.70	28.90	0.01	51.30	4.70	3.66	1.74
7204	2221	20939	SD	0.05	5.03	15.30	0.05	383.00	5.98	1.79	159.00	96.10	0.72	97.80	38.80	26.00	55.20	0.01	74.60	13.70	4.37	2.52
7204	2222	20939	LD	0.05	4.78	16.00	0.00	283.00	4.29	1.59	138.00	87.40	0.10	98.10	33.30	26.70	43.20	0.25	56.50	8.90	4.01	1.89
7207	2224	20939	N	0.05	8.39	20.70	0.02	287.00	4.16	0.25	90.00	63.10	0.63	137.00	11.00	10.50	36.10	0.92	89.40	18.80	11.70	6.16
7208	2225	20939	N	0.05	7.26	17.30	0.01	299.00	3.62	0.25	67.60	37.10	0.21	172.00	3.88	6.56	24.90	0.70	51.00	12.80	9.77	3.78
7209	2226	20939	N	0.05	10.90	22.40	0.02	569.00	5.51	0.87	136.00	42.10	0.25	138.00	28.10	14.40	50.20	1.54	80.40	22.50	10.00	4.69
7210	2227	20939	N	0.05	3.64	8.29	0.01	290.00	7.06	0.25	36.80	26.70	0.05	26.20	23.90	15.20	31.40	0.34	17.00	2.40	1.22	0.61
7211	2228	20939	N	0.05	3.02	7.54	0.01	448.00	3.91	0.25	41.30	31.10	0.37	48.50	6.77	34.30	26.50	0.19	24.20	3.21	2.10	1.36
7212	2229	20939	N	0.05	9.21	12.80	0.05	1050.00	8.03	0.85	162.00	69.10	1.17	229.00	23.50	31.60	51.50	0.68	82.80	20.00	8.58	4.56
7213	2230	20939	N	0.05	6.03	8.78	0.02	274.00	3.42	9.27	73.20	27.10	0.05	51.20	4.62	8.16	33.70	0.51	27.50	1.91	1.48	0.85
7214	2231	20939	N	0.05	8.68	7.67	0.02	307.00	4.21	3.51	50.00	24.70	0.57	54.50	3.89	16.50	29.90	0.66	23.90	1.86	1.24	0.62
7215	2232	20939	N	0.05	7.40	19.10	0.02	513.00	3.08	8.70	83.80	31.80	0.61	98.40	17.70	22.20	31.80	0.91	43.60	6.01	4.13	1.43
8001	2086	20939	N	0.05	22.30	24.70	0.16	1740.00	0.45	1.86	431.00	1620.00	1.50	22.90	46.90	21.80	108.00	1.09	141.00	2.72	1.08	0.77
8002	2087	20939	N	0.05	27.30	28.20	0.02	809.00	2.75	0.75	60.10	207.00	0.86	50.00	23.40	30.30	69.40	1.86	57.70	6.63	4.99	2.38
8003	2088	20939	N	0.05	16.70	23.50	0.21	3670.00	0.53	2.30	203.00	1330.00	1.36	21.20	59.60	32.10	119.00	0.98	114.00	3.59	1.48	1.03
8004	2090	20939	LD	0.05	15.00	24.70	0.21	3640.00	0.35	2.13	258.00	1440.00	1.18	15.70	46.40	28.40	108.00	0.91	102.00	2.78	1.17	0.77
8004	2089	20939	SD	0.05	10.50	22.90	0.16	2840.00	0.38	1.88	209.00	1260.00	0.20	10.60	39.50	27.50	87.00	0.72	103.00	1.87	0.82	0.52
8005	2092	20939	N	0.05	2.97	24.20	0.06	1050.00	0.64	16.90	74.30	205.00	0.15	20.70	22.90	29.50	51.40	0.01	83.50	2.80	2.21	1.48
8006	2093	20939	N	0.05	2.02	35.30	0.00	429.00	0.61	12.30	61.00	146.00	0.05	22.60	1.64	18.00	29.40	0.01	39.70	3.36	2.90	1.11
8007	2094	20939	N	0.05	2.06	18.70	0.08	742.00	0.31	13.20	84.60	380.00	0.05	11.30	0.50	11.20	34.10	0.01	52.70	1.08	1.04	0.54
8008	2095	20939	FD	0.05	10.30	22.70	0.12	1320.00	0.89	16.50	129.00	654.00	0.05	15.60	7.24	14.30	42.20	1.20	55.00	1.37	1.16	0.58
8009	2096	20939	N	0.05	6.97	23.40	0.11	2030.00	0.38	14.00	95.70	859.00	0.05	15.30	4.61	8.35	49.30	0.49	73.80	1.38	1.06	0.76
8010	2097	20939	N	0.05	15.30	29.50	0.01	610.00	2.14	5.38	58.60	85.10	0.05	83.00	16.60	13.10	47.90	1.41	121.00	10.90	11.60	4.16
8011	2098	20939	N	0.05	6.80	20.40	0.10	1110.00	0.24	12.90	92.70	741.00	0.05	23.00	0.50	11.80	42.90	0.49	82.20	1.80	1.65	0.82
8013	2099	20939	N	0.05	2.66	26.30	0.02	625.00	1.01	10.80	105.00	154.00	0.05	29.50	68.40	18.30	44.30	0.01	63.30	4.92	4.10	1.55

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Actlabs ID	Actlabs File	Sample Type (Actlabs batch)	Ag_ENZ_ppb	Al_ENZ_ppm	As_ENZ_ppb	Au_ENZ_ppb	Ba_ENZ_ppb	Be_ENZ_ppb	Bi_ENZ_ppb	Br_ENZ_ppb	Ca_ENZ_ppm	Cd_ENZ_ppb	Ce_ENZ_ppb	Cl_ENZ_ppb	Co_ENZ_ppb	Cr_ENZ_ppb	Cs_ENZ_ppb	Cu_ENZ_ppb	Dy_ENZ_ppb	Er_ENZ_ppb	Eu_ENZ_ppb
8014	2100	20939	N	0.05	7.19	22.90	0.08	763.00	0.18	6.90	92.70	765.00	0.12	17.80	0.50	12.40	44.70	0.48	68.80	1.45	1.11	0.61
8015	2101	20939	N	0.05	4.20	23.00	0.04	897.00	0.79	7.72	144.00	141.00	0.05	28.90	25.20	32.40	63.20	0.05	60.70	8.90	4.22	1.87
8016	2102	20939	SD	0.05	4.47	25.70	0.00	607.00	0.90	5.64	115.00	106.00	0.05	30.30	2.93	25.40	36.00	0.10	51.60	6.24	4.75	1.69
8016	2103	20939	LD	0.05	5.17	30.20	0.02	749.00	1.57	7.34	171.00	145.00	0.05	40.50	34.70	37.60	67.80	0.11	73.00	9.14	5.04	2.23
8017	2105	20939	N	0.05	2.14	19.80	0.06	814.00	0.15	1.90	90.40	384.00	0.33	10.80	6.90	10.90	42.90	0.01	57.50	1.20	0.95	0.53
8018	2106	20939	N	0.05	7.03	22.20	0.06	1150.00	0.44	4.22	83.70	754.00	0.05	17.10	0.50	6.79	42.40	0.62	59.80	1.27	1.12	0.64
8019	2107	20939	N	0.05	3.71	21.10	0.08	1010.00	0.05	3.83	153.00	520.00	0.05	8.93	2.41	10.80	35.10	0.22	59.90	0.89	0.67	0.36
8020	2108	20939	FD	0.05	8.34	26.10	0.17	1110.00	0.41	4.87	224.00	965.00	1.13	10.30	20.20	10.90	62.60	0.58	51.90	1.51	0.71	0.43
8021	2120	20939	N	0.05	6.42	22.80	0.11	1660.00	0.68	3.63	187.00	832.00	0.14	34.00	41.00	50.20	67.60	0.55	140.00	7.22	5.01	1.72
8022	2121	20939	N	0.05	1.48	19.20	0.02	662.00	0.38	1.79	122.00	322.00	0.05	19.00	6.68	25.40	31.10	0.01	86.50	1.95	2.35	0.85
8023	2122	20939	N	0.05	32.20	29.20	0.07	1920.00	1.17	3.90	201.00	1120.00	0.33	46.60	30.00	32.80	70.10	3.73	102.00	5.62	4.44	1.66
8025	2123	20939	N	0.05	8.00	19.30	0.05	1300.00	0.51	2.91	145.00	589.00	0.05	19.20	4.47	11.60	37.60	0.69	70.20	2.47	2.01	0.78
8026	2124	20939	N	0.05	3.65	17.50	0.10	1390.00	0.05	1.68	64.80	539.00	0.05	9.14	0.50	8.21	33.00	0.18	64.90	1.40	1.38	0.55
8027	2125	20939	N	0.05	2.29	28.90	0.07	816.00	0.52	0.67	96.10	291.00	0.05	15.80	24.70	14.50	45.00	0.01	69.70	1.91	2.17	0.89
8028	2126	20939	SD	0.05	3.27	23.40	0.10	1150.00	0.50	1.63	113.00	374.00	0.05	19.20	16.70	17.70	66.80	0.01	81.60	3.59	2.21	1.11
8028	2127	20939	LD	0.05	2.57	25.80	0.09	955.00	0.61	1.66	145.00	291.00	0.05	15.90	21.60	24.70	56.20	0.01	64.40	2.82	1.88	0.75
8029	2129	20939	N	0.05	4.15	20.00	0.13	1590.00	0.56	1.83	109.00	822.00	0.05	19.20	15.90	19.00	61.10	0.15	99.40	2.21	1.45	0.90
8030	2130	20939	N	0.05	1.69	14.20	0.18	546.00	0.05	0.77	67.10	370.00	0.05	11.00	0.50	7.41	33.00	0.01	49.00	1.08	0.78	0.45
8031	2131	20939	N	0.05	5.20	13.30	0.09	2090.00	0.33	3.01	233.00	1110.00	0.05	9.18	25.20	26.80	56.40	0.45	113.00	0.93	0.83	0.38
8032	2132	20939	FD	0.05	5.63	15.70	0.09	1980.00	0.43	3.07	307.00	1130.00	0.05	9.42	36.30	23.40	66.40	0.47	129.00	1.32	0.85	0.36
8033	2133	20939	N	0.05	3.37	18.30	0.18	2630.00	0.14	2.93	480.00	1270.00	0.27	7.16	31.50	37.30	70.90	0.12	135.00	1.21	0.66	0.42
8034	2134	20939	N	0.05	7.23	17.30	0.11	1840.00	0.05	2.08	157.00	996.00	0.11	10.80	24.00	30.70	73.70	0.25	36.70	1.88	1.05	0.74
8035	2135	20939	N	0.05	9.77	23.90	0.20	2320.00	0.32	2.09	164.00	1080.00	0.24	10.80	45.40	39.90	76.10	0.83	104.00	1.59	0.85	0.49
8037	2136	20939	N	0.05	6.82	22.40	0.14	2810.00	0.33	1.50	146.00	852.00	0.63	10.50	26.20	14.20	66.50	0.27	108.00	2.50	1.26	0.78
8038	2137	20939	N	0.05	10.20	18.00	0.15	3010.00	0.32	2.11	167.00	995.00	0.36	12.20	23.60	30.50	58.30	0.76	102.00	2.46	1.27	0.75
8039	2138	20939	N	0.05	1.14	16.20	0.06	688.00	0.57	10.20	67.50	170.00	0.05	14.40	5.53	14.80	27.00	0.14	65.40	2.14	1.38	0.93
8040	2139	20939	SD	0.05	2.80	16.00	0.05	989.00	0.42	8.21	55.70	234.00	0.05	9.69	0.50	9.67	20.40	0.49	50.90	1.21	0.89	0.49
8040	2140	20939	LD	0.05	3.12	17.30	0.07	1320.00	0.55	10.10	78.90	246.00	0.10	10.70	12.80	12.90	27.30	0.87	57.50	1.40	0.94	0.46
8041	2142	20939	N	0.05	1.55	25.70	0.05	760.00	0.37	7.58	137.00	144.00	0.11	25.60	18.80	28.00	37.60	0.25	80.50	6.16	2.34	1.06
8042	2143	20939	N	0.05	1.72	11.80	0.03	315.00	0.05	5.84	150.00	426.00	0.18	8.91	0.50	5.41	22.10	0.27	31.60	0.99	0.55	0.31
8043	2144	20939	N	0.05	3.08	23.60	0.13	2870.00	0.76	5.29	129.00	321.00	0.42	11.50	20.40	34.00	46.00	0.50	42.50	2.22	0.74	0.52
8044	2145	20939	FD	0.05	0.82	12.50	0.05	1220.00	0.18	2.68	49.40	157.00	0.05	7.94	3.22	17.00	19.10	0.09	31.80	0.86	0.48	0.30
8045	2146	20939	N	0.05	3.87	15.50	0.10	661.00	0.47	3.44	55.10	492.00	0.62	14.50	7.83	12.20	37.00	0.81	51.80	0.93	0.49	0.31
8046	2147	20939	N	0.05	2.03	16.00	0.04	383.00	0.20	3.10	60.50	525.00	0.30	6.47	9.72	6.34	33.40	0.28	48.00	0.96	0.39	0.29
8047	2148	20939	N	0.05	2.85	21.90	0.10	660.00	0.49	4.66	63.60	310.00	0.65	12.20	16.80	9.97	29.20	0.91	49.60	1.38	0.68	0.31

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Actlabs ID	Actlabs File	Sample Type (Actlabs batch)	Ag_ENZ_ppb	Al_ENZ_ppm	As_ENZ_ppb	Au_ENZ_ppb	Ba_ENZ_ppb	Be_ENZ_ppb	Bi_ENZ_ppb	Br_ENZ_ppb	Ca_ENZ_ppm	Cd_ENZ_ppb	Ce_ENZ_ppb	Cl_ENZ_ppb	Co_ENZ_ppb	Cr_ENZ_ppb	Cs_ENZ_ppb	Cu_ENZ_ppb	Dy_ENZ_ppb	Er_ENZ_ppb	Eu_ENZ_ppb
8049	2149	20939	N	0.05	1.23	14.60	0.07	554.00	0.05	2.31	24.70	171.00	0.38	8.21	4.80	12.10	22.90	0.18	45.00	0.85	0.51	0.28
8050	2150	20939	N	0.05	2.32	20.30	0.06	555.00	1.42	3.80	43.10	117.00	0.55	28.60	26.50	22.20	44.20	0.25	79.30	4.78	1.67	1.06
8051	2151	20939	N	0.05	1.84	32.00	0.05	826.00	0.77	2.47	46.90	78.70	0.18	22.30	18.40	36.00	29.60	0.34	44.90	3.56	1.78	0.74
8052	2152	20939	SD	0.05	1.30	17.40	0.07	786.00	0.20	2.08	31.00	113.00	0.50	17.20	0.50	17.70	24.40	0.19	44.10	2.02	1.01	0.61
8052	2153	20939	LD	0.05	2.11	21.80	0.12	936.00	0.94	2.80	64.80	131.00	0.68	20.20	22.90	32.40	40.80	0.38	45.00	3.24	1.13	0.62
8053	2155	20939	N	0.05	2.53	18.40	0.09	1040.00	0.38	2.64	50.70	350.00	0.55	8.24	21.80	25.90	37.80	0.59	62.00	1.55	0.51	0.30
8054	2156	20939	N	0.05	3.13	16.00	0.20	1280.00	0.45	3.19	75.70	484.00	1.06	8.20	25.90	24.20	43.20	0.57	66.50	1.45	0.42	0.32
8055	2157	20939	N	0.05	0.98	13.70	0.05	735.00	0.30	2.93	184.00	1300.00	0.19	6.28	13.70	45.00	30.50	0.17	71.30	0.86	0.39	0.29
8056	2158	20939	FD	0.05	1.32	22.50	0.12	476.00	0.41	3.54	260.00	1880.00	1.10	8.02	27.70	96.80	46.70	0.37	55.70	1.40	0.60	0.29
8057	2159	20939	N	0.05	1.85	21.60	0.10	470.00	0.74	4.14	287.00	1530.00	0.98	17.30	28.30	38.40	45.60	0.52	61.70	3.21	0.99	0.53
8058	2160	20939	N	0.05	1.17	14.90	0.05	495.00	0.23	1.78	118.00	1190.00	0.27	8.41	1.13	38.40	20.40	0.23	54.60	0.87	0.50	0.27
8059	2161	20939	N	0.05	1.27	16.50	0.07	955.00	0.31	1.88	128.00	0.05	0.97	8.53	22.90	105.00	46.90	0.46	63.40	1.74	0.60	0.38
8061	2162	20939	N	0.05	4.51	16.20	0.06	922.00	0.41	1.95	77.90	347.00	0.39	18.00	5.52	19.40	35.90	0.80	114.00	4.37	1.42	0.84
8062	2163	20939	N	0.05	1.92	17.90	0.04	454.00	0.89	2.23	126.00	93.30	0.21	15.80	10.20	12.90	37.60	0.20	68.70	6.33	1.82	0.99
8063	2164	20939	N	0.05	1.92	16.60	0.04	570.00	0.40	1.53	72.90	294.00	0.05	15.10	2.99	13.50	20.90	0.38	78.70	1.84	1.15	0.58
8064	2165	20939	SD	0.05	0.91	13.80	0.07	428.00	0.43	1.64	85.90	152.00	0.16	17.60	3.68	15.50	26.70	0.01	82.00	3.32	1.44	0.74
8064	2166	20939	LD	0.05	0.75	17.20	0.06	390.00	0.21	1.76	101.00	129.00	0.05	15.00	10.10	17.40	24.00	0.02	70.60	2.15	1.29	0.60
8065	2168	20939	N	0.05	0.74	14.00	0.08	659.00	0.42	0.85	52.30	150.00	0.05	12.90	0.50	17.30	16.80	0.09	67.20	1.38	0.72	0.42
8066	2169	20939	N	0.05	1.20	13.30	0.03	810.00	0.48	1.72	132.00	5150.00	1.19	9.74	29.00	65.10	41.20	0.35	44.70	1.91	0.64	0.29
8067	2170	20939	N	0.05	4.03	23.10	0.04	622.00	0.68	1.50	94.00	527.00	0.84	17.20	11.40	15.80	39.10	0.58	93.00	3.28	1.20	0.67
8068	2171	20939	FD	0.05	2.84	28.60	0.02	450.00	0.91	1.32	61.00	283.00	0.31	11.50	18.80	16.60	33.30	0.82	76.90	1.67	0.64	0.31
8142	2233	20939	N	0.05	23.10	46.60	0.04	313.00	4.73	10.20	87.80	12.20	0.62	161.00	3.40	10.30	57.90	3.43	217.00	18.30	13.40	4.50
8143	2234	20939	N	0.05	21.20	38.40	0.03	985.00	5.15	7.81	59.00	73.70	1.48	123.00	17.10	68.10	59.60	2.32	83.70	12.80	7.00	2.40
8144	2235	20939	N	0.05	0.85	195.00	0.02	237.00	0.36	22.40	89.40	596.00	4.21	7.82	22.50	16.00	21.00	0.01	21.20	0.61	0.48	0.21
8145	2236	20939	N	0.05	1.15	10.90	0.06	133.00	0.37	4.56	40.90	141.00	1.12	11.90	5.75	19.30	18.30	0.01	35.50	0.68	0.88	0.34
8146	2237	20939	N	0.05	8.75	15.10	0.02	291.00	5.47	4.58	79.30	25.50	0.28	85.40	25.70	31.70	41.20	1.34	68.00	12.40	8.84	3.36
8147	2238	20939	N	0.05	10.40	15.10	0.01	247.00	4.25	2.57	42.20	13.70	0.05	88.40	8.83	13.40	31.30	1.59	55.20	8.32	6.75	2.49
8148	2239	20939	FD	0.05	3.28	9.70	0.00	192.00	4.19	2.05	36.40	16.10	0.05	77.00	5.92	13.30	23.10	0.25	49.30	6.83	7.34	3.17
8149	2240	20939	SD	0.05	14.10	17.10	0.02	421.00	5.81	2.09	47.10	24.40	0.36	120.00	16.50	16.10	53.50	1.67	85.30	11.90	8.39	4.15
8149	2241	20939	LD	0.05	17.10	18.40	0.03	373.00	5.78	2.04	46.00	19.10	1.23	119.00	13.20	15.00	51.80	1.74	73.70	12.10	8.19	3.73
8152	2243	20939	N	0.05	22.10	30.70	0.09	582.00	6.38	2.71	65.10	40.90	1.02	81.80	25.50	23.20	67.30	2.80	85.90	9.12	4.85	2.09
8153	2244	20939	N	0.05	1.60	22.30	0.10	588.00	0.85	6.24	80.30	97.40	0.36	29.20	21.90	34.50	25.90	0.01	59.70	3.13	1.94	0.68
8154	2245	20939	N	0.05	11.00	27.60	0.02	480.00	1.85	0.90	17.80	33.70	0.49	53.60	4.83	10.60	35.50	1.29	46.60	2.86	2.58	1.03
8155	2246	20939	N	0.05	1.78	24.50	0.00	343.00	1.13	3.18	49.20	60.10	1.24	46.70	17.70	24.30	21.90	0.01	63.30	4.08	3.65	1.13
8156	2247	20939	N	0.05	9.78	17.90	0.02	334.00	2.56	0.69	23.10	17.40	0.68	41.80	0.50	6.78	31.00	1.12	40.50	4.42	3.32	1.67

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Actlabs ID	Actlabs File	Sample Type (Actlabs batch)	Ag_ENZ_ppb	Al_ENZ_ppm	As_ENZ_ppb	Au_ENZ_ppb	Ba_ENZ_ppb	Be_ENZ_ppb	Bi_ENZ_ppb	Br_ENZ_ppb	Ca_ENZ_ppm	Cd_ENZ_ppb	Ce_ENZ_ppb	Cl_ENZ_ppb	Co_ENZ_ppb	Cr_ENZ_ppb	Cs_ENZ_ppb	Cu_ENZ_ppb	Dy_ENZ_ppb	Er_ENZ_ppb	Eu_ENZ_ppb
8157	2248	20939	N	0.05	29.80	24.70	0.06	797.00	5.73	2.98	75.00	26.80	0.53	134.00	14.80	13.50	72.20	4.51	83.50	18.80	7.28	3.80
8158	2249	20939	N	0.05	14.20	19.10	0.05	346.00	2.41	2.31	81.80	27.00	0.78	154.00	10.40	4.85	53.20	1.75	122.00	14.90	11.00	5.11
8159	2250	20939	N	0.05	18.90	22.70	0.11	699.00	3.97	2.98	123.00	25.20	0.50	198.00	17.20	9.27	60.20	2.94	150.00	21.50	10.60	5.10
8160	2251	20939	N	0.05	12.80	19.40	0.02	350.00	9.60	2.18	68.40	32.80	1.01	122.00	20.70	82.30	40.50	2.40	74.30	16.70	11.80	4.27
8161	2252	20939	N	0.05	5.94	26.30	0.01	483.00	4.41	0.67	32.30	55.70	0.36	58.10	2.43	41.50	29.80	0.42	47.00	7.18	7.08	2.42
8162	2253	20939	FD	0.05	2.86	20.40	0.01	797.00	2.46	2.69	61.30	135.00	1.75	48.60	9.08	85.60	34.60	0.01	76.50	6.21	4.23	1.59
8163	2254	20939	SD	0.05	2.91	19.20	0.02	860.00	2.49	3.17	105.00	113.00	1.77	33.70	22.80	71.80	45.40	0.01	103.00	6.10	2.92	1.17
8163	2255	20939	LD	0.05	2.89	20.60	0.02	787.00	1.30	3.07	112.00	102.00	1.67	30.40	25.40	77.50	44.00	0.01	95.20	5.56	2.83	1.06
8166	2257	20939	N	0.05	24.40	18.60	0.05	635.00	12.40	1.49	95.50	34.60	1.06	114.00	22.20	40.60	70.30	3.31	107.00	18.40	9.46	4.57
8167	2258	20939	N	0.05	21.20	22.50	0.01	608.00	6.72	3.11	142.00	21.10	0.52	140.00	18.10	17.50	53.30	4.30	109.00	20.00	11.50	4.64
8168	2259	20939	N	0.05	6.68	13.00	0.00	336.00	5.43	1.57	89.70	34.80	0.31	75.00	23.10	23.90	37.70	0.81	59.30	15.40	7.12	2.92
8169	2260	20939	N	0.05	5.13	22.00	0.00	561.00	2.52	1.05	39.90	52.50	0.46	52.60	2.42	23.30	20.50	0.69	61.50	5.04	5.03	1.49
8170	2261	20939	N	0.05	4.45	28.00	0.00	755.00	3.51	0.65	38.80	50.50	0.85	39.50	2.02	74.60	20.00	0.30	45.00	3.55	4.46	1.37
8171	2262	20939	N	0.05	19.80	20.70	0.00	677.00	8.32	1.34	67.60	13.00	3.91	113.00	12.70	162.00	38.40	3.24	118.00	12.50	15.30	3.38
8172	2263	20939	N	0.05	12.80	23.10	0.04	707.00	8.67	2.98	172.00	17.40	0.56	197.00	6.48	10.50	49.40	1.71	109.00	24.10	14.60	6.76
8173	2264	20939	N	0.05	0.05	36.70	0.05	1060.00	9.62	2.92	132.00	25.50	0.97	259.00	0.50	21.40	82.30	8.10	167.00	24.60	18.20	7.90
8174	2265	20939	N	0.05	14.50	45.20	0.03	796.00	8.03	3.56	224.00	32.50	0.44	136.00	22.60	20.80	52.20	2.84	172.00	21.80	12.90	5.36
8175	2266	20939	N	0.05	16.80	34.60	0.02	430.00	7.15	2.45	165.00	49.30	0.65	160.00	18.60	41.30	46.10	3.15	156.00	23.20	14.70	4.59
8176	2267	20939	FD	0.05	15.30	26.10	0.01	275.00	4.72	1.01	101.00	36.10	0.98	177.00	6.06	11.40	48.50	2.13	159.00	19.10	16.70	5.68
8177	2268	20939	SD	0.05	10.50	20.10	0.01	252.00	5.22	1.61	161.00	31.50	0.39	158.00	12.70	14.40	41.80	1.72	142.00	19.40	13.90	5.17
8177	2269	20939	LD	0.05	11.90	21.30	0.04	383.00	5.28	2.01	178.00	40.90	0.45	166.00	16.90	17.00	50.80	2.12	131.00	25.90	14.90	6.11
8180	2271	20939	N	0.05	11.90	35.60	0.00	190.00	4.41	0.25	84.50	67.00	0.23	104.00	11.60	39.50	40.10	1.45	128.00	10.10	12.10	3.48
8181	2109	20939	N	0.05	6.94	17.60	0.07	550.00	0.20	4.14	154.00	754.00	0.34	17.30	2.20	8.84	46.60	0.47	87.50	1.56	1.20	0.66
8182	2110	20939	N	0.05	7.70	21.10	0.06	760.00	0.16	2.69	148.00	659.00	0.51	15.40	19.00	10.90	36.80	0.68	65.60	0.97	0.89	0.49
8183	2111	20939	N	0.05	3.74	9.52	0.10	320.00	0.17	2.74	119.00	720.00	0.05	11.50	1.53	22.30	43.70	0.12	65.90	0.91	0.78	0.45
8184	2112	20939	SD	0.05	2.39	9.21	0.10	294.00	0.21	2.74	106.00	603.00	0.05	8.45	12.90	30.60	35.60	0.12	59.60	0.64	0.54	0.29
8184	2113	20939	LD	0.05	3.75	12.40	0.21	535.00	0.30	4.18	199.00	815.00	0.05	10.20	45.00	54.70	66.00	0.25	63.30	1.23	0.57	0.32
8185	2115	20939	N	0.05	15.70	21.60	0.21	1870.00	0.29	5.59	344.00	1260.00	0.72	25.10	36.30	19.90	76.90	1.35	75.40	2.60	1.36	0.89
8186	2116	20939	N	0.05	4.53	18.90	0.08	998.00	0.29	3.63	112.00	878.00	0.34	11.30	0.50	12.10	31.60	0.41	71.70	0.86	0.81	0.42
8187	2117	20939	N	0.05	4.14	34.90	0.03	722.00	1.65	3.98	202.00	245.00	0.05	29.70	28.70	27.50	50.70	0.01	284.00	4.00	3.51	1.16
8188	2118	20939	N	0.05	4.10	14.90	0.15	2110.00	0.25	2.71	143.00	968.00	0.05	10.80	0.50	18.80	41.70	0.20	88.30	0.93	0.94	0.65
8189	2119	20939	N	0.05	4.25	16.20	0.08	768.00	0.11	1.99	97.70	601.00	0.05	10.20	0.50	17.00	35.50	0.16	72.60	1.13	0.87	0.50
8194	2272	20939	N	0.05	8.57	21.20	0.01	441.00	2.47	0.63	39.90	73.20	1.23	78.00	3.90	19.70	33.40	0.62	81.90	6.55	6.83	2.10
8195	2273	20939	N	0.05	7.36	32.20	0.00	559.00	15.60	0.66	120.00	24.40	1.23	99.50	9.45	9.47	30.50	0.80	122.00	20.00	19.10	4.99
8196	2274	20939	N	0.05	2.03	32.50	0.03	586.00	0.92	0.54	31.40	80.00	0.62	47.90	9.75	60.70	20.10	0.01	48.20	4.94	4.57	1.23

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Actlabs ID	Actlabs File	Sample Type (Actlabs batch)	Ag_ENZ_ppb	Al_ENZ_ppm	As_ENZ_ppb	Au_ENZ_ppb	Ba_ENZ_ppb	Be_ENZ_ppb	Bi_ENZ_ppb	Br_ENZ_ppb	Ca_ENZ_ppm	Cd_ENZ_ppb	Ce_ENZ_ppb	Cl_ENZ_ppb	Co_ENZ_ppb	Cr_ENZ_ppb	Cs_ENZ_ppb	Cu_ENZ_ppb	Dy_ENZ_ppb	Er_ENZ_ppb	Eu_ENZ_ppb
8197	2275	20939	N	0.05	18.50	59.80	0.02	789.00	3.83	1.16	99.60	159.00	0.43	77.70	18.90	15.70	56.10	2.36	230.00	7.87	5.28	1.94
8198	2276	20939	N	0.05	21.70	19.40	0.10	440.00	5.07	21.70	120.00	19.70	0.86	89.50	19.90	15.80	73.10	3.50	115.00	20.70	10.90	4.74
8199	2277	20939	N	0.05	2.53	9.67	0.05	194.00	1.58	26.30	62.70	74.10	1.86	47.60	24.10	29.70	47.20	0.06	42.90	13.20	7.08	2.45
8200	2278	20939	N	0.05	4.51	15.20	0.16	318.00	0.52	15.30	32.80	73.80	0.72	20.80	16.60	51.00	40.90	0.18	27.30	3.32	1.46	0.64
8201	2279	20939	N	0.05	2.44	22.30	0.07	371.00	1.15	21.20	96.80	86.30	0.79	37.30	22.80	62.10	38.10	0.01	43.00	6.55	3.48	1.20
8202	2280	20939	N	0.05	2.86	19.20	0.17	471.00	0.81	14.50	59.60	103.00	1.05	15.40	29.20	61.50	41.00	0.14	48.80	2.29	1.02	0.47
8203	2281	20939	FD	0.05	1.50	20.40	0.00	179.00	0.93	7.18	48.50	53.20	0.05	39.90	5.14	12.20	18.00	0.01	83.30	7.35	6.93	1.88
8204	2282	20939	SD	0.05	1.51	19.90	0.00	195.00	1.24	6.63	49.40	50.90	0.11	35.50	6.04	12.70	17.80	0.01	65.90	6.03	6.02	1.62
8204	2283	20939	LD	0.05	15.90	30.20	0.00	384.00	2.81	6.34	66.40	64.90	0.05	65.40	19.00	23.60	38.50	2.86	74.50	7.95	8.08	2.12
8207	2285	20939	N	0.05	3.16	21.90	0.03	394.00	1.18	6.09	84.90	83.00	0.70	42.40	23.10	41.00	30.90	0.09	46.20	7.99	4.59	1.52
8208	2286	20939	N	0.05	27.90	33.20	0.05	487.00	3.39	0.59	52.70	60.40	0.64	111.00	6.13	8.29	11.30	3.15	135.00	19.70	14.00	5.32
8209	2287	20939	N	0.05	12.60	21.90	0.02	392.00	3.64	5.64	70.40	29.30	0.25	102.00	17.00	10.40	37.30	2.99	85.10	12.80	8.82	2.95
8210	2288	20939	N	0.05	13.40	15.30	0.01	332.00	3.86	2.74	48.10	22.00	0.36	54.60	16.60	10.60	42.20	1.43	57.90	8.28	3.53	1.82
8211	2289	20939	N	0.05	18.50	26.30	0.03	629.00	3.79	3.68	59.50	51.30	1.06	67.20	13.60	26.10	54.10	1.89	77.20	10.40	3.93	2.01
8212	2290	20939	N	0.05	14.20	25.70	0.04	410.00	2.69	2.27	37.90	34.20	0.56	48.90	4.96	26.10	37.40	1.45	71.10	5.41	3.30	1.34
8213	2291	20939	N	0.05	17.40	21.50	0.04	543.00	4.34	3.56	84.40	25.30	0.57	110.00	11.90	10.10	52.30	2.19	132.00	16.20	9.77	4.60
8214	2292	20939	N	0.05	9.72	22.40	0.00	263.00	2.31	1.78	42.30	27.50	1.16	59.90	9.40	22.10	29.40	1.49	43.40	4.44	5.50	1.62
8215	2293	20939	N	0.05	14.40	19.00	0.03	415.00	3.93	2.53	71.30	35.00	0.05	72.10	21.50	9.61	54.00	1.73	74.70	11.40	6.59	2.61
NAT98-282	2005	20939	STD	0.05	36.70	29.00	0.31	2360.00	1.37	7.87	214.00	1960.00	2.95	22.00	21.00	36.30	160.00	2.01	117.00	2.69	1.13	0.88
NAT98-282	2042	20939	STD	0.05	14.00	20.20	0.25	2700.00	0.57	1.57	210.00	2470.00	1.64	12.50	8.14	39.80	107.00	0.89	130.00	1.29	0.70	0.59
Till2	2018	20939	STD	0.05	21.10	21.20	0.02	761.00	1.48	10.90	1220.00	71.00	2.69	63.40	34.50	21.20	82.30	3.65	181.00	6.35	3.45	1.55
NAT98-282	2195	20939	STD	0.05	12.10	21.00	0.19	1720.00	1.30	7.18	136.00	474.00	1.85	34.70	23.30	27.90	53.30	1.75	115.00	2.84	1.14	0.82
NAT98-282	2242	20939	STD	0.05	7.72	18.70	0.23	1870.00	0.43	9.47	184.00	553.00	1.79	28.70	25.20	31.10	48.10	0.96	102.00	2.55	1.45	0.62
NAT98-282	2284	20939	STD	0.31	7.09	15.30	0.20	1250.00	0.40	15.90	161.00	413.00	0.53	17.40	17.60	21.90	36.10	1.39	79.40	1.43	0.81	0.42
Till2	2209	20939	STD	0.05	14.60	15.50	0.01	1030.00	3.11	7.38	746.00	36.00	5.11	63.90	28.50	33.30	37.70	2.93	218.00	6.82	3.50	1.76
NAT98-282	2081	20939	STD	0.05	11.80	16.30	0.12	1990.00	0.47	1.64	157.00	1500.00	0.89	12.50	3.76	30.50	65.50	0.73	125.00	0.93	0.66	0.51
NAT98-282	2154	20939	STD	0.05	3.91	15.10	0.12	1170.00	0.37	3.17	75.40	311.00	0.29	14.70	0.50	15.70	22.90	0.88	73.80	1.20	0.68	0.42
Till2	2128	20939	STD	0.05	33.30	19.60	0.01	1300.00	3.26	17.00	1310.00	61.40	5.82	65.40	48.30	44.00	75.90	4.57	215.00	6.88	3.95	1.70
Till3	2104	20939	STD	0.83	4.60	668.00	0.02	203.00	0.62	1.61	235.00	289.00	0.05	27.10	24.10	47.60	1.50	0.46	128.00	3.26	1.74	1.07
Till2	2306	20939	STD	0.05	22.40	16.10	0.03	730.00	3.04	12.40	1120.00	43.40	6.40	54.80	33.70	38.90	46.70	3.55	176.00	6.98	2.55	1.09

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Actlabs ID	Actlabs File	Sample Type (Actlabs batch)	Ag_ENZ_ppb	Al_ENZ_ppm	As_ENZ_ppb	Au_ENZ_ppb	Ba_ENZ_ppb	Be_ENZ_ppb	Bi_ENZ_ppb	Br_ENZ_ppb	Ca_ENZ_ppm	Cd_ENZ_ppb	Ce_ENZ_ppb	Cl_ENZ_ppb	Co_ENZ_ppb	Cr_ENZ_ppb	Cs_ENZ_ppb	Cu_ENZ_ppb	Dy_ENZ_ppb	Er_ENZ_ppb	Eu_ENZ_ppb
Till3	2270	20939	STD	0.42	5.49	641.00	0.03	191.00	0.38	1.02	289.00	353.00	0.41	27.00	20.00	41.30	1.50	0.33	132.00	3.40	1.63	0.99
Till3	2028	20939	STD	0.53	8.77	627.00	0.03	191.00	1.12	9.23	240.00	693.00	0.05	31.90	20.00	37.30	1.50	0.88	138.00	2.93	2.22	1.27
Till2	2256	20939	STD	0.05	19.20	23.60	0.01	854.00	2.30	8.85	759.00	36.70	3.93	73.20	19.00	26.90	37.90	2.64	221.00	5.43	3.67	1.33
Till2	2055	20939	STD	0.05	36.40	19.40	0.03	1310.00	3.34	15.10	1530.00	63.20	4.79	67.10	45.80	35.10	80.80	3.87	183.00	8.34	3.20	1.52
Till2	2091	20939	STD	0.05	91.20	23.80	0.05	2240.00	6.66	18.10	1760.00	133.00	9.99	84.90	75.30	59.40	142.00	5.37	325.00	11.90	4.69	2.34
Till3	2181	20939	STD	0.64	4.06	629.00	0.06	171.00	0.69	1.23	273.00	219.00	0.33	25.10	22.10	44.00	1.50	0.29	121.00	2.98	1.63	1.05
Till3	2319	20939	STD	0.45	3.72	594.00	0.03	159.00	0.64	0.64	274.00	239.00	0.05	28.00	20.00	32.40	1.50	0.32	112.00	3.04	1.70	0.86
Till3	2141	20939	STD	1.03	3.52	649.00	0.01	207.00	0.62	1.46	282.00	196.00	0.05	29.90	24.20	48.00	1.50	0.77	175.00	2.96	1.61	0.97
NAT98-282	2114	20939	STD	0.05	10.80	17.60	0.24	2840.00	0.25	6.75	267.00	1110.00	1.00	10.60	23.90	44.20	63.90	0.89	122.00	1.14	0.60	0.43
Till2	2167	20939	STD	0.05	8.28	12.90	0.01	982.00	2.62	4.07	687.00	26.60	2.58	56.50	22.40	27.40	40.00	2.52	210.00	7.96	2.68	1.50
Till3	2223	20939	STD	5.08	1.83	617.00	0.02	149.00	0.05	0.96	218.00	188.00	0.05	27.00	20.10	35.60	1.50	0.33	119.00	2.33	1.77	0.96
Till3	2068	20939	STD	0.85	9.15	656.00	0.03	193.00	0.77	2.49	301.00	627.00	0.05	26.90	24.10	40.70	1.50	0.61	128.00	2.90	1.82	0.96

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Fe_ENZ_ppm	Ga_ENZ_ppb	Gd_ENZ_ppb	Ge_ENZ_ppb	Hf_ENZ_ppb	Hg_ENZ_ppb	Ho_ENZ_ppb	I_ENZ_ppb	In_ENZ_ppb	K_ENZ_ppm	La_ENZ_ppb	Li_ENZ_ppb	Lu_ENZ_ppb	Mg_ENZ_ppm	Mn_ENZ_ppb	Mo_ENZ_ppb	Na_ENZ_ppm	Nb_ENZ_ppb	Nd_ENZ_ppb	Ni_ENZ_ppb	Pb_ENZ_ppb	Pr_ENZ_ppb	Rb_ENZ_ppb	Re_ENZ_ppb
5001	3.07	0.15	3.19	0.44	0.55	0.65	0.41	4.83	0.01	1.82	8.63	24.70	0.17	35.90	339.00	342.00	13.00	1.87	13.00	23.90	5.89	3.44	33.10	0.03
5002	9.00	2.10	1.61	0.75	0.74	1.80	0.35	13.00	0.01	3.04	7.37	60.60	0.18	80.30	1460.00	919.00	22.00	1.87	10.90	63.60	10.00	1.60	40.90	0.30
5003	5.67	0.87	1.32	1.21	0.53	1.19	0.33	13.00	0.03	3.51	4.69	37.00	0.18	68.00	961.00	485.00	18.20	1.21	7.58	47.60	7.02	1.23	48.90	0.34
5004	9.04	1.22	1.19	0.87	0.59	1.76	0.30	13.00	0.01	3.13	4.23	42.60	0.17	80.80	978.00	532.00	23.30	0.94	6.21	43.80	9.01	1.15	38.30	0.37
5005	6.32	1.57	3.01	0.79	1.37	0.66	0.56	12.00	0.02	2.25	9.45	26.70	0.18	31.20	234.00	230.00	16.10	1.40	10.40	74.10	8.19	2.42	44.10	0.18
5006	5.64	0.15	2.07	0.60	0.75	0.44	0.32	11.00	0.01	1.41	3.43	47.50	0.17	27.70	615.00	121.00	15.80	1.28	7.04	42.70	4.69	1.74	30.90	0.08
5007	10.60	0.34	2.79	0.41	1.07	0.05	0.32	9.00	0.01	1.59	5.82	50.80	0.14	57.90	1680.00	135.00	24.90	2.63	13.60	51.60	6.77	2.92	66.90	0.11
5008	4.97	0.88	1.60	0.61	0.76	1.50	0.40	10.00	0.01	1.76	6.49	26.30	0.18	49.50	868.00	382.00	15.60	1.55	8.64	52.80	8.39	1.69	19.90	0.21
5009	24.50	3.29	1.90	1.35	0.90	0.72	0.46	23.00	0.01	3.86	7.93	60.20	0.26	58.60	7790.00	398.00	10.70	1.16	10.40	134.00	6.32	1.64	87.20	0.35
5010	7.56	1.18	1.41	0.84	0.82	1.58	0.35	8.00	0.01	2.93	6.77	36.80	0.20	54.00	1430.00	361.00	24.60	1.23	7.74	36.60	11.90	1.26	50.70	0.14
5010	7.73	0.69	1.52	0.65	0.88	0.92	0.28	11.00	0.01	1.99	4.73	33.20	0.15	44.50	1430.00	360.00	27.90	1.64	5.81	26.70	9.46	1.29	51.60	0.11
5011	5.66	0.53	0.70	0.68	0.37	0.99	0.12	28.00	0.01	2.50	2.51	154.00	0.05	74.10	318.00	2690.00	0.02	0.73	3.34	20.60	7.33	0.73	51.40	0.15
5013	9.48	1.08	2.63	0.70	0.59	0.30	0.32	17.00	0.01	2.60	9.37	95.80	0.12	76.50	357.00	422.00	0.02	1.29	13.80	23.10	10.10	3.22	48.70	0.04
5014	8.60	0.47	1.60	0.80	0.45	0.44	0.20	31.00	0.01	2.95	4.04	80.20	0.09	108.00	4400.00	273.00	82.90	1.85	6.77	25.30	8.28	1.55	72.90	0.19
5015	14.80	0.15	0.74	1.42	0.44	2.42	0.11	42.00	0.02	3.05	3.32	144.00	0.05	0.04	6220.00	144.00	0.02	1.01	3.75	33.00	6.29	0.81	54.50	0.87
5016	15.40	0.53	1.27	2.26	0.46	3.40	0.25	35.00	0.01	4.08	5.70	167.00	0.10	0.04	4940.00	164.00	0.02	1.18	6.03	53.60	5.61	1.54	47.20	1.51
5017	6.91	1.67	1.05	0.49	0.33	1.17	0.17	10.00	0.01	2.97	3.29	88.80	0.08	123.00	2050.00	190.00	0.02	0.86	6.01	27.60	4.01	1.03	27.20	0.59
5018	14.30	0.64	1.33	0.45	0.46	0.27	0.17	13.00	0.01	2.01	3.41	45.10	0.09	77.10	2260.00	262.00	32.00	1.25	6.95	36.90	5.81	1.36	56.90	0.17
5019	8.63	1.38	1.11	0.90	0.48	0.89	0.21	15.00	0.01	3.67	4.93	92.70	0.12	127.00	2220.00	523.00	59.80	1.27	7.57	48.50	7.94	1.26	51.30	1.24
5020	6.38	1.14	1.58	1.70	0.71	0.67	0.39	15.00	0.01	3.66	5.25	93.60	0.17	96.60	2190.00	302.00	50.30	0.97	7.56	52.90	8.20	1.35	47.20	0.73
5021	3.38	0.34	0.68	2.00	0.24	0.62	0.17	11.00	0.01	2.64	3.08	101.00	0.06	116.00	7600.00	55.80	57.90	1.02	3.42	24.50	5.86	0.57	40.80	1.39
5022	3.05	0.48	1.00	1.59	0.58	1.01	0.23	16.00	0.01	2.64	5.08	141.00	0.10	90.00	2650.00	296.00	60.20	1.25	5.18	69.60	8.30	0.91	44.00	2.49
5023	3.78	0.42	1.48	0.80	0.33	0.05	0.16	30.00	0.01	2.98	2.59	212.00	0.09	93.50	901.00	521.00	59.30	1.37	6.12	35.70	5.64	1.37	78.50	0.43
5023	9.08	1.38	2.89	1.08	0.85	0.61	0.51	31.00	0.01	3.20	7.64	218.00	0.25	87.70	792.00	429.00	41.20	1.41	22.80	57.10	10.30	3.04	62.30	0.69
5025	12.20	0.83	1.23	6.11	0.32	1.79	0.22	23.00	0.01	4.15	5.80	348.00	0.08	0.04	21700.00	126.00	109.00	1.60	5.52	28.50	11.90	1.17	116.00	6.56
5026	5.47	0.37	0.43	1.64	0.37	2.29	0.11	28.30	0.76	1.06	1.74	640.00	0.01	95.40	767.00	700.00	41.60	4.62	2.35	15.20	3.59	0.42	67.10	1.04
7001	9.30	4.71	1.49	0.02	1.02	6.16	0.17	44.90	0.03	2.57	5.71	45.50	0.08	31.00	2080.00	4.05	16.30	2.76	7.84	41.80	3.99	2.02	58.30	0.00
7002	14.80	13.20	5.25	0.42	2.28	6.34	0.82	51.30	0.02	4.82	25.90	36.30	0.25	33.80	248.00	5.72	6.53	3.17	43.90	127.00	5.69	17.10	81.30	0.03
7003	19.90	9.14	2.74	1.09	2.67	3.10	0.29	50.20	0.07	3.33	13.30	60.90	0.13	27.00	845.00	3.46	5.08	6.88	12.50	83.20	7.38	3.63	81.80	0.00
7004	14.90	5.16	3.50	0.63	4.89	3.68	0.69	52.90	0.06	3.33	25.80	46.30	0.23	23.80	374.00	2.83	4.67	4.63	19.40	115.00	8.02	4.05	48.90	0.01
7004	19.40	10.30	2.90	0.99	4.20	2.46	0.43	55.50	0.08	2.82	19.80	51.20	0.18	22.70	330.00	3.36	6.06	5.94	18.90	99.30	7.84	4.66	66.70	0.00
7005	4.67	1.81	0.57	0.02	0.79	4.48	0.13	25.50	0.02	2.33	3.00	15.50	0.08	12.80	2140.00	1.89	2.33	1.14	3.47	35.40	3.01	0.66	50.10	0.00
7006	12.30	2.56	3.18	0.34	3.02	1.42	0.55	42.40	0.04	2.39	13.90	50.90	0.18	21.50	309.00	2.72	5.68	2.69	16.90	72.60	5.28	3.42	48.00	0.00
7007	9.94	3.29	5.11	0.35	2.63	1.66	0.87	47.60	0.03	6.70	14.60	92.30	0.33	44.70	496.00	6.00	5.01	1.45	32.90	72.10	2.36	6.15	91.20	0.04
7008	9.21	5.19	2.72	0.37	3.22	3.13	0.74	35.80	0.03	2.23	18.30	31.20	0.23	20.60	542.00	1.66	9.55	1.94	17.40	89.10	5.08	3.49	44.70	0.00
7009	13.70	11.30	4.89	1.02	5.81	3.85	1.21	35.30	0.08	2.99	47.30	25.60	0.40	44.40	620.00	3.24	11.40	3.72	38.50	140.00	9.20	7.17	38.60	0.02
7010	11.60	6.31	9.14	0.65	4.41	1.86	1.53	47.20	0.02	3.79	32.50	69.20	0.37	31.10	388.00	7.13	12.00	1.49	66.80	129.00	2.28	12.50	43.90	0.00

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Fe_ENZ_ppm	Ga_ENZ_ppb	Gd_ENZ_ppb	Ge_ENZ_ppb	Hf_ENZ_ppb	Hg_ENZ_ppb	Ho_ENZ_ppb	I_ENZ_ppb	In_ENZ_ppb	K_ENZ_ppm	La_ENZ_ppb	Li_ENZ_ppb	Lu_ENZ_ppb	Mg_ENZ_ppm	Mn_ENZ_ppb	Mo_ENZ_ppb	Na_ENZ_ppm	Nb_ENZ_ppb	Nd_ENZ_ppb	Ni_ENZ_ppb	Pb_ENZ_ppb	Pr_ENZ_ppb	Rb_ENZ_ppb	Re_ENZ_ppb
7011	8.74	1.43	1.73	0.22	1.48	1.06	0.21	37.50	0.01	1.71	9.50	52.50	0.07	25.70	389.00	1.72	[illegible]	1.46	9.71	50.50	4.43	2.54	69.00	0.00
7013	25.90	14.30	10.40	1.21	6.87	2.83	2.74	52.90	0.10	4.51	47.70	121.00	1.05	36.50	344.00	5.85	7.75	5.34	89.80	126.00	9.72	11.60	82.70	0.03
7014	16.30	10.10	7.64	0.50	5.70	1.95	1.61	43.30	0.01	2.82	39.30	61.80	0.49	37.80	513.00	3.11	14.30	4.07	74.20	112.00	8.02	12.10	58.30	0.03
7015	4.24	1.38	1.00	0.02	0.49	1.79	0.17	28.90	0.01	3.52	4.12	12.40	0.06	9.22	1820.00	3.02	3.75	1.17	4.81	19.80	1.80	1.05	40.70	0.00
7016	7.22	3.52	1.41	0.16	0.57	1.66	0.25	34.80	0.01	5.72	3.87	25.80	0.08	21.80	2840.00	7.06	5.92	1.62	8.67	26.80	1.55	1.69	59.60	0.00
7016	5.40	0.90	1.15	0.18	0.56	1.55	0.22	62.10	0.01	4.20	3.64	15.40	0.07	11.60	2340.00	3.39	3.56	1.46	5.14	19.20	1.32	1.24	40.30	0.00
7017	19.40	9.28	6.56	1.02	3.71	2.35	1.13	48.30	0.01	7.09	28.20	96.50	0.43	52.90	1120.00	6.10	3.87	3.72	49.30	103.00	7.33	8.05	70.20	0.04
7018	18.00	11.10	4.59	0.86	3.92	1.32	0.80	44.40	0.02	2.56	23.60	102.00	0.25	40.40	357.00	3.58	13.20	4.74	41.60	107.00	7.11	7.81	63.30	0.01
7019	11.10	2.76	8.74	0.64	3.97	2.04	1.79	83.00	0.02	4.07	31.90	123.00	0.62	41.60	474.00	4.84	8.07	1.56	62.50	236.00	3.93	10.80	37.20	0.08
7020	20.00	8.74	2.82	1.26	3.58	0.43	0.52	42.20	0.03	2.89	34.70	95.10	0.19	48.50	3780.00	4.42	5.96	6.44	19.80	108.00	7.76	5.51	84.40	0.06
7021	13.10	3.17	3.07	0.38	2.12	0.34	0.39	38.20	0.01	1.79	14.30	31.90	0.10	51.00	1620.00	3.74	6.33	1.90	19.00	66.40	4.57	4.76	25.50	0.00
7022	19.60	13.40	9.39	1.36	5.61	1.12	1.49	63.70	0.02	1.70	46.20	123.00	0.48	159.00	3980.00	5.51	11.30	7.21	83.10	575.00	7.03	14.10	49.00	0.00
7023	11.60	2.87	5.38	0.34	4.45	0.60	0.78	37.40	0.02	1.34	25.20	21.30	0.17	42.40	766.00	1.63	10.00	2.38	28.00	58.70	5.34	6.85	23.90	0.00
7025	13.70	5.05	5.67	0.47	3.30	0.05	0.92	50.10	0.01	1.89	19.00	52.30	0.22	34.70	1150.00	3.26	8.35	1.85	25.50	57.80	4.80	6.44	28.50	0.00
7026	7.28	4.03	2.24	0.56	2.53	1.03	0.67	54.10	0.01	4.71	14.50	39.30	0.20	38.60	2230.00	8.37	2.93	1.33	17.40	78.50	3.60	3.14	43.90	0.00
7027	7.00	4.41	4.17	0.66	3.08	1.32	1.08	46.90	0.01	3.54	17.20	44.50	0.37	25.20	9420.00	6.25	5.34	1.32	23.40	77.30	3.27	4.29	48.00	0.00
7028	13.80	7.04	9.79	0.56	3.59	0.30	1.80	53.90	0.01	3.90	31.40	125.00	0.62	50.50	2160.00	5.88	8.18	1.99	78.20	74.50	3.66	12.70	37.50	0.00
7028	9.45	2.58	10.70	0.36	3.43	0.29	1.60	58.00	0.01	3.10	26.90	96.50	0.59	43.20	1900.00	4.61	7.84	1.61	63.00	54.50	2.55	12.50	29.80	0.00
7029	81.40	51.60	9.85	5.41	8.68	1.20	2.14	58.60	0.12	7.38	105.00	159.00	0.92	69.00	1910.00	9.26	9.05	27.40	108.00	303.00	34.20	18.30	246.00	0.00
7030	4.31	0.15	7.09	0.55	0.93	0.05	1.13	163.00	0.01	1.19	15.00	153.00	0.38	50.40	476.00	12.80	23.00	1.02	30.60	42.60	1.45	6.37	6.98	0.00
7031	5.11	0.15	5.14	0.65	1.18	0.05	0.99	54.60	0.01	1.61	15.80	57.20	0.25	45.00	954.00	9.78	8.18	0.73	24.90	58.90	1.71	4.81	7.19	0.05
7032	4.46	2.70	8.93	0.97	2.56	4.50	2.55	91.20	0.12	1.53	34.60	82.40	1.10	56.70	798.00	13.50	12.00	1.72	49.70	179.00	5.56	8.85	6.93	0.05
7033	4.67	2.22	5.92	0.23	1.27	3.13	1.18	38.60	0.01	3.18	21.20	54.40	0.44	41.70	1970.00	9.42	2.27	1.43	48.10	58.20	2.53	6.82	8.25	0.04
7034	1.93	0.15	2.02	0.26	0.43	2.75	0.56	45.70	0.01	4.07	8.36	20.20	0.21	28.20	2340.00	9.79	2.10	1.00	10.60	94.30	1.58	2.02	16.10	0.00
7035	6.41	2.62	6.95	0.49	3.03	2.51	1.68	36.50	0.01	3.46	33.40	66.80	0.62	54.40	2040.00	6.36	7.05	1.82	59.80	167.00	3.34	8.79	9.48	0.01
7037	5.08	1.11	1.19	0.27	0.85	2.35	0.28	21.80	0.01	3.18	5.45	10.80	0.10	15.90	3800.00	5.16	5.08	1.14	5.94	27.70	2.11	1.24	18.90	0.00
7038	5.85	3.76	5.40	0.87	3.09	2.01	1.35	48.40	0.01	7.35	21.70	50.60	0.49	35.90	1820.00	10.50	4.09	1.19	37.50	98.00	2.79	5.40	37.80	0.02
7039	22.30	8.38	6.01	1.01	3.70	1.08	1.15	44.00	0.01	4.97	23.60	138.00	0.45	42.80	2130.00	8.25	6.09	3.51	41.90	116.00	6.48	7.07	67.20	0.02
7040	19.80	5.27	6.29	1.10	4.63	1.27	1.28	45.70	0.02	3.27	27.50	69.80	0.46	25.90	2690.00	4.47	5.16	3.17	31.60	92.20	7.63	6.24	50.80	0.02
7040	18.70	4.52	6.32	1.18	4.88	1.48	1.45	49.60	0.02	2.90	30.60	81.00	0.50	23.10	2370.00	4.94	4.98	4.16	30.60	90.70	7.81	7.47	43.00	0.00
7041	14.30	5.25	9.48	0.77	2.28	2.89	2.08	76.50	0.01	5.22	37.50	58.90	0.82	34.70	1290.00	7.13	4.54	1.47	70.80	86.10	4.68	10.10	34.90	0.04
7042	8.64	4.56	1.53	0.19	0.26	1.74	0.22	551.00	0.01	1.87	5.53	69.80	0.09	102.00	1310.00	19.20	13.90	1.06	11.70	54.50	1.84	1.99	13.00	0.00
7043	20.20	13.00	3.60	0.91	4.57	2.09	0.91	51.40	0.04	6.44	26.40	59.80	0.40	42.60	778.00	3.98	3.98	5.04	25.70	130.00	9.68	4.71	58.40	0.00
7044	15.30	4.58	6.55	0.49	2.82	0.85	1.08	36.90	0.01	6.57	25.80	107.00	0.36	50.80	3420.00	6.36	4.70	2.57	40.40	123.00	4.62	8.46	95.40	0.00
7045	4.37	1.32	11.00	0.56	0.89	0.89	1.88	52.10	0.01	1.62	59.70	215.00	0.82	115.00	1000.00	28.50	31.90	0.84	84.50	104.00	3.25	12.10	5.64	0.07
7046	3.70	1.27	9.94	0.47	1.98	0.51	2.38	96.00	0.01	0.72	29.70	139.00	0.74	39.80	575.00	16.30	27.10	0.82	51.60	55.00	1.87	8.90	4.05	0.08
7047	4.47	1.33	6.30	0.31	0.49	0.48	0.81	84.60	0.01	0.81	17.40	242.00	0.31	58.90	323.00	51.90	35.50	1.12	37.90	38.30	1.79	7.31	5.65	0.02

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Fe_ENZ_ppm	Ga_ENZ_ppb	Gd_ENZ_ppb	Ge_ENZ_ppb	Hf_ENZ_ppb	Hg_ENZ_ppb	Ho_ENZ_ppb	I_ENZ_ppb	In_ENZ_ppb	K_ENZ_ppm	La_ENZ_ppb	Li_ENZ_ppb	Lu_ENZ_ppb	Mg_ENZ_ppm	Mn_ENZ_ppb	Mo_ENZ_ppb	Na_ENZ_ppm	Nb_ENZ_ppb	Nd_ENZ_ppb	Ni_ENZ_ppb	Pb_ENZ_ppb	Pr_ENZ_ppb	Rb_ENZ_ppb	Re_ENZ_ppb
7049	9.37	0.90	7.96	0.35	2.48	0.37	1.41	65.70	0.01	1.77	21.30	122.00	0.42	38.90	1990.00	10.90	18.90	0.80	38.40	44.60	2.11	7.64	11.50	0.04
7050	3.52	0.15	4.32	0.26	0.44	0.51	0.64	64.60	0.01	1.11	9.40	146.00	0.27	31.50	1460.00	53.20	19.20	0.89	19.00	47.80	1.78	4.23	5.61	0.05
7051	28.20	7.17	8.10	0.51	6.41	1.09	1.24	31.40	0.02	2.29	28.60	157.00	0.42	31.30	54.00	5.18	17.40	3.79	56.90	58.90	10.60	11.40	37.10	0.01
7052	35.90	9.53	9.70	0.70	7.75	0.76	1.48	34.60	0.01	2.60	45.30	144.00	0.54	36.80	74.10	6.01	15.10	6.41	73.10	74.30	13.90	13.00	42.10	0.01
7052	31.20	7.97	10.10	0.81	7.91	0.33	1.43	36.20	0.03	2.10	34.30	138.00	0.52	28.00	61.50	5.87	17.30	6.59	54.60	68.00	12.00	12.80	39.30	0.01
7053	5.10	4.09	3.86	0.36	0.47	0.71	0.58	118.00	0.01	2.74	11.20	240.00	0.20	68.00	1490.00	74.70	30.10	1.05	23.60	44.60	3.33	4.16	15.30	0.03
7054	4.67	0.86	8.07	0.23	1.28	0.44	1.12	124.00	0.01	0.90	20.10	194.00	0.46	64.50	370.00	35.70	42.50	1.12	44.10	51.50	2.11	8.97	5.16	0.05
7055	13.80	6.12	2.60	0.33	2.23	0.58	0.35	32.10	0.01	0.99	17.00	51.40	0.14	76.10	1680.00	4.90	10.80	3.23	12.70	39.80	5.66	4.06	23.60	0.07
7056	17.70	4.44	3.13	0.69	4.89	0.56	0.62	28.80	0.01	1.56	22.10	61.80	0.20	58.90	882.00	2.36	14.40	3.02	19.50	61.10	9.26	4.56	29.90	0.08
7057	18.30	9.99	4.15	0.79	3.36	0.45	1.01	34.10	0.01	2.20	30.30	44.20	0.32	93.40	970.00	5.91	27.80	2.50	34.90	82.40	8.79	5.91	20.10	0.12
7058	10.70	3.37	3.43	0.72	4.29	1.30	0.90	47.40	0.01	1.55	25.20	61.90	0.26	53.50	1520.00	3.64	9.62	2.07	18.80	78.30	7.43	3.70	19.10	0.04
7059	22.90	9.69	3.82	0.95	10.40	0.44	0.63	55.70	0.01	3.19	22.30	148.00	0.25	138.00	237.00	4.04	18.40	3.08	36.20	78.70	9.08	5.58	27.60	0.11
7061	29.70	11.30	8.05	1.15	10.90	1.16	1.47	63.50	0.01	2.92	40.00	125.00	0.52	102.00	125.00	4.50	45.60	7.80	74.10	96.20	15.20	12.60	57.10	0.14
7062	2.59	0.15	5.64	0.44	1.21	0.85	1.18	64.50	0.01	0.80	24.10	230.00	0.47	91.00	734.00	12.60	40.50	0.49	33.00	62.40	2.81	5.59	3.35	0.07
7063	3.82	1.16	7.09	0.62	2.81	0.24	1.96	90.90	0.01	1.46	32.70	224.00	0.73	101.00	323.00	15.80	34.80	0.79	50.30	62.80	2.03	7.18	3.87	0.09
7064	2.91	0.15	7.38	0.35	2.22	0.25	1.44	96.40	0.01	0.95	21.20	156.00	0.44	72.60	257.00	10.60	25.80	0.67	35.10	31.50	1.65	6.60	3.34	0.05
7064	2.92	0.15	7.29	0.31	2.42	0.17	1.36	100.00	0.01	0.98	19.50	188.00	0.46	75.50	253.00	12.00	34.80	0.72	34.60	31.50	1.69	7.32	3.52	0.04
7065	13.70	7.57	6.45	0.83	3.16	0.42	1.75	72.60	0.01	2.72	38.30	122.00	0.67	82.70	1420.00	5.35	9.53	3.13	51.30	134.00	4.52	7.74	32.10	0.06
7066	19.90	9.51	10.90	1.14	12.20	1.19	2.63	102.00	0.01	3.44	50.80	116.00	0.86	67.80	196.00	2.58	37.30	4.86	88.80	94.20	10.10	14.10	35.80	0.12
7067	29.50	6.90	18.00	0.92	9.55	0.31	2.79	110.00	0.01	2.09	51.70	117.00	0.83	77.80	118.00	3.24	45.10	6.08	111.00	82.00	11.50	23.00	48.60	0.04
7068	22.50	4.15	15.80	0.68	10.20	0.44	2.38	117.00	0.01	1.86	51.00	84.10	0.76	54.10	118.00	2.51	27.60	4.57	76.30	77.30	7.56	19.10	49.80	0.03
7142	16.50	3.27	22.40	0.55	6.09	1.01	3.45	97.10	0.01	1.05	52.00	164.00	1.62	11.20	63.70	5.80	76.50	2.70	242.00	37.60	6.82	31.10	45.90	0.01
7143	9.33	1.54	20.10	0.39	7.22	0.26	2.63	80.60	0.01	1.10	37.90	79.50	0.82	14.00	65.00	2.37	13.90	1.20	103.00	27.60	4.88	23.50	42.10	0.00
7144	8.39	1.77	1.33	0.18	0.29	0.34	0.26	53.40	0.01	2.59	5.67	319.00	0.10	0.04	309.00	119.00	66.70	0.73	11.70	49.90	1.42	1.88	32.10	0.12
7145	2.27	0.15	3.34	0.06	0.19	0.05	0.49	105.00	0.01	1.33	7.10	101.00	0.19	26.60	1580.00	115.00	3.11	0.49	16.70	66.30	1.32	3.83	7.90	0.00
7146	6.00	0.40	9.50	0.12	3.13	0.05	0.96	42.70	0.01	1.07	26.30	93.50	0.28	21.20	232.00	1.65	8.43	1.07	65.80	46.80	1.58	14.40	94.40	0.00
7147	7.45	1.24	12.20	0.23	3.47	0.05	1.41	29.40	0.01	1.00	39.90	126.00	0.33	20.80	699.00	1.58	7.10	1.21	100.00	60.40	4.67	19.20	102.00	0.00
7148	5.08	0.35	10.20	0.18	4.95	0.05	1.19	39.10	0.01	0.85	43.60	88.70	0.24	11.70	86.50	0.62	5.37	0.74	55.70	47.30	4.19	14.70	111.00	0.00
7149	6.36	0.96	8.82	0.19	5.93	0.05	1.48	41.80	0.01	0.96	57.80	80.00	0.33	14.40	308.00	0.78	4.33	1.16	50.70	69.50	5.51	12.70	114.00	0.00
7149	8.04	1.09	8.79	0.27	5.74	0.05	1.27	34.90	0.01	0.90	55.30	84.30	0.28	13.60	221.00	0.71	4.33	1.79	56.60	57.80	6.41	13.60	110.00	0.00
7152	10.40	1.52	8.07	0.30	2.82	0.05	0.93	56.30	0.01	0.82	18.60	105.00	0.22	16.20	116.00	1.81	10.60	2.54	41.80	32.10	5.91	10.20	103.00	0.00
7153	5.85	1.31	13.90	0.38	1.74	0.05	2.28	90.70	0.01	1.00	31.10	308.00	1.18	41.10	1490.00	9.39	10.50	1.15	109.00	37.30	3.24	16.00	11.90	0.01
7154	9.60	3.07	7.35	0.41	0.91	2.97	1.07	33.60	0.02	1.86	14.40	106.00	0.62	14.40	137.00	6.85	14.60	2.04	60.00	31.70	12.10	10.00	83.40	0.00
7155	9.83	0.90	13.50	0.32	3.28	0.28	2.71	70.40	0.09	1.25	30.00	93.50	1.18	17.00	1150.00	21.80	11.60	1.98	58.40	198.00	5.10	12.20	13.50	0.01
7156	10.20	2.56	9.49	0.54	3.00	0.73	1.75	50.60	0.01	1.55	22.50	59.30	0.44	11.30	117.00	4.50	11.30	2.36	46.40	35.40	4.94	10.90	113.00	0.00
7157	15.90	6.28	10.80	0.88	4.87	1.62	2.48	38.50	0.02	2.47	58.80	103.00	0.83	18.70	143.00	8.03	11.00	8.32	84.90	84.10	10.70	15.40	73.40	0.01
7158	10.30	2.43	9.41	0.35	2.88	1.90	2.26	29.80	0.02	1.77	45.10	75.00	0.77	14.40	51.30	7.69	10.60	2.46	79.10	86.80	3.87	12.50	40.00	0.00

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Fe_ENZ_ppm	Ga_ENZ_ppb	Gd_ENZ_ppb	Ge_ENZ_ppb	Hf_ENZ_ppb	Hg_ENZ_ppb	Ho_ENZ_ppb	I_ENZ_ppb	In_ENZ_ppb	K_ENZ_ppm	La_ENZ_ppb	Li_ENZ_ppb	Lu_ENZ_ppb	Mg_ENZ_ppm	Mn_ENZ_ppb	Mo_ENZ_ppb	Na_ENZ_ppm	Nb_ENZ_ppb	Nd_ENZ_ppb	Ni_ENZ_ppb	Pb_ENZ_ppb	Pr_ENZ_ppb	Rb_ENZ_ppb	Re_ENZ_ppb
7159	15.40	3.30	15.70	0.43	3.07	1.37	1.97	62.10	0.01	1.17	33.90	147.00	0.86	13.20	70.80	5.03	23.00	3.62	110.00	51.90	7.26	22.70	85.90	0.01
7160	16.30	4.10	8.78	0.56	1.46	0.52	1.26	47.40	0.01	0.84	20.80	79.10	0.42	11.00	218.00	4.54	12.80	4.82	47.50	59.10	7.41	12.60	94.50	0.00
7161	8.84	2.18	6.04	0.43	2.54	0.85	1.20	34.30	0.01	0.84	33.20	49.50	0.34	9.79	564.00	1.53	5.76	2.94	37.70	51.30	6.88	7.28	63.60	0.00
7162	10.20	5.49	6.45	0.56	3.57	1.37	1.34	51.40	0.01	1.30	45.70	88.80	0.40	19.00	564.00	3.12	10.00	2.82	43.50	112.00	6.82	8.40	47.60	0.00
7163	10.60	1.69	5.67	0.31	3.25	0.21	0.79	39.90	0.01	0.72	28.30	65.60	0.19	12.10	547.00	2.54	8.06	4.14	23.60	57.90	7.46	6.97	50.10	0.00
7163	11.40	4.29	4.69	0.27	2.75	0.61	1.00	36.20	0.01	1.49	37.50	104.00	0.31	24.90	591.00	3.81	10.40	2.65	44.70	105.00	6.15	7.95	57.60	0.00
7166	7.63	1.40	4.36	0.32	1.21	0.05	0.53	42.30	0.01	0.86	11.60	78.30	0.15	8.09	309.00	2.81	9.71	2.84	19.10	44.30	4.30	6.01	139.00	0.00
7167	17.00	4.66	16.00	0.65	4.32	0.65	1.87	57.80	0.01	1.50	31.00	272.00	0.89	14.30	110.00	4.70	29.20	4.48	118.00	76.20	11.40	21.20	153.00	0.01
7168	7.80	0.82	2.63	0.34	2.40	0.68	0.42	21.80	0.01	0.89	14.40	36.40	0.14	9.26	411.00	1.84	5.22	2.41	13.60	32.90	4.76	3.50	66.10	0.00
7169	7.77	3.08	11.20	0.49	3.21	1.61	2.78	79.20	0.01	1.04	56.40	88.70	0.88	12.00	248.00	2.20	12.40	3.76	70.00	98.40	7.98	14.50	70.60	0.00
7170	8.71	3.55	8.59	0.38	2.34	0.61	1.10	58.00	0.01	1.33	40.90	209.00	0.34	19.50	1590.00	1.77	7.89	2.43	67.80	117.00	4.87	14.80	147.00	0.00
7171	20.70	5.41	24.80	1.07	8.11	1.20	5.61	172.00	0.01	0.35	60.00	239.00	2.35	4.90	557.00	11.40	0.02	5.11	110.00	105.00	13.10	22.90	51.10	0.04
7172	14.40	1.71	14.30	0.48	4.43	0.05	2.07	66.50	0.01	0.94	31.90	198.00	0.72	9.63	376.00	1.29	23.50	3.29	78.40	74.60	7.31	18.10	128.00	0.00
7173	6.37	1.72	4.28	0.28	1.92	0.05	0.73	33.20	0.01	0.80	29.20	47.00	0.20	9.20	547.00	1.11	5.28	3.03	21.80	50.00	3.81	5.33	97.50	0.00
7174	9.91	1.26	10.00	0.32	4.39	0.05	1.59	39.90	0.01	0.92	30.20	106.00	0.36	11.10	200.00	1.15	9.05	2.40	47.70	73.80	4.52	11.40	127.00	0.01
7175	24.40	3.55	19.10	0.53	5.20	0.12	2.41	80.80	0.01	1.00	50.30	136.00	0.72	16.30	99.60	3.85	20.40	5.66	118.00	65.10	7.61	28.00	75.80	0.00
7176	16.20	3.48	16.80	0.66	5.79	0.55	3.58	72.20	0.03	1.08	54.80	133.00	1.49	9.56	110.00	2.78	17.90	4.11	96.60	59.40	9.71	17.40	79.00	0.01
7177	14.70	5.67	23.70	0.78	6.25	0.42	5.41	106.00	0.01	1.59	68.50	213.00	2.46	17.90	99.40	3.98	24.60	3.19	193.00	91.10	9.65	28.00	84.10	0.03
7177	16.90	3.19	25.20	0.45	5.05	0.20	3.81	101.00	0.01	1.32	47.10	214.00	1.56	19.60	109.00	4.34	26.90	1.87	160.00	71.60	5.07	28.50	101.00	0.01
7180	20.60	7.30	22.80	0.75	6.60	0.16	3.48	120.00	0.01	1.23	96.20	267.00	0.86	37.30	964.00	3.88	18.20	3.89	167.00	134.00	10.50	36.00	64.10	0.00
7181	7.92	3.90	17.60	0.43	4.25	0.61	2.88	111.00	0.01	1.16	39.50	305.00	0.96	65.70	1110.00	4.73	21.30	1.13	92.20	84.50	2.00	18.90	8.06	0.08
7182	15.80	10.30	17.40	1.41	6.54	1.55	4.00	72.40	0.02	1.42	54.90	128.00	1.73	66.70	559.00	2.48	32.60	2.25	120.00	94.50	4.49	18.70	20.70	0.04
7183	5.58	2.57	1.50	0.23	0.27	1.56	0.29	68.90	0.01	3.33	6.46	116.00	0.10	147.00	3040.00	142.00	55.00	1.29	12.30	106.00	2.35	1.88	16.10	0.12
7184	3.49	0.15	1.09	0.43	0.19	1.05	0.22	73.60	0.01	[illegible]	4.19	79.50	0.08	76.90	4260.00	98.40	48.60	0.95	5.70	117.00	1.81	1.06	10.60	0.05
7184	4.09	4.92	1.12	0.39	0.20	1.03	0.28	77.40	0.01	2.74	5.57	99.40	0.11	114.00	4750.00	105.00	52.20	0.82	8.38	170.00	1.89	1.32	10.80	0.11
7185	3.42	2.03	7.38	0.29	0.80	0.74	1.53	110.00	0.01	1.75	24.30	153.00	0.68	75.90	710.00	21.80	11.40	0.90	59.00	106.00	2.70	8.25	5.23	0.02
7186	10.80	8.50	22.40	0.71	6.96	0.72	4.56	68.00	0.02	2.92	55.80	58.00	1.66	62.90	1010.00	3.35	18.20	1.66	163.00	123.00	3.19	23.90	15.90	0.04
7187	4.48	1.61	2.84	0.29	1.24	0.81	0.51	84.70	0.01	1.32	10.50	450.00	0.19	63.90	2410.00	7.11	10.10	0.99	14.20	85.10	1.61	3.33	12.70	0.04
7188	11.80	1.89	8.58	0.74	4.41	0.50	1.37	49.50	0.01	2.36	31.90	57.40	0.27	40.30	2190.00	7.77	6.60	1.48	35.20	59.20	6.06	9.03	18.40	0.03
7189	4.40	2.30	10.00	0.45	0.85	0.51	2.15	87.90	0.01	1.02	24.10	261.00	1.04	82.00	1930.00	46.20	22.00	0.90	64.20	214.00	2.63	8.86	5.69	0.12
7194	13.40	2.03	2.68	0.15	0.75	0.38	0.40	23.70	0.01	1.39	14.80	56.50	0.13	13.20	334.00	2.27	6.18	1.49	19.50	100.00	3.61	4.16	161.00	0.00
7195	7.00	0.15	0.91	0.06	0.80	0.05	0.11	21.70	0.01	1.23	2.85	22.60	0.04	11.80	651.00	1.97	1.81	0.80	3.70	43.40	2.05	1.14	119.00	0.00
7196	3.57	0.76	10.20	0.38	1.80	0.49	2.47	76.80	0.01	0.56	34.90	207.00	1.03	32.80	464.00	14.50	14.20	0.68	56.50	48.20	2.61	11.40	6.24	0.03
7197	6.17	2.71	18.80	0.50	3.91	0.28	4.30	98.70	0.01	0.46	45.90	358.00	2.13	34.40	196.00	6.33	35.80	0.97	152.00	51.60	2.23	22.10	5.81	0.06
7198	3.94	4.12	4.99	0.34	1.60	0.54	1.10	23.40	0.01	1.72	18.50	119.00	0.44	12.00	136.00	1.77	19.80	1.10	44.70	35.70	2.67	6.71	82.50	0.01
7199	5.22	0.51	16.20	0.27	2.09	0.05	2.19	57.20	0.01	0.57	38.20	77.40	0.46	21.80	1040.00	3.92	5.92	0.89	78.60	27.60	1.71	19.50	5.71	0.00
7200	8.20	3.02	11.10	0.89	2.23	0.93	2.55	45.00	0.01	1.80	50.00	265.00	0.95	41.30	1370.00	4.20	3.87	0.90	77.20	48.60	3.02	14.60	17.20	0.04

Field Number	Fe_ENZ_ppm	Ga_ENZ_ppb	Gd_ENZ_ppb	Ge_ENZ_ppb	Hf_ENZ_ppb	Hg_ENZ_ppb	Ho_ENZ_ppb	I_ENZ_ppb	In_ENZ_ppb	K_ENZ_ppm	La_ENZ_ppb	Li_ENZ_ppb	Lu_ENZ_ppb	Mg_ENZ_ppm	Mn_ENZ_ppb	Mo_ENZ_ppb	Na_ENZ_ppm	Nb_ENZ_ppb	Nd_ENZ_ppb	Ni_ENZ_ppb	Pb_ENZ_ppb	Pr_ENZ_ppb	Rb_ENZ_ppb	Re_ENZ_ppb
7201	14.00	5.51	15.70	0.79	5.62	0.23	4.19	64.40	0.01	0.69	64.10	119.00	1.38	34.70	819.00	3.23	14.80	2.30	105.00	52.30	6.46	20.10	20.50	0.03
7202	6.63	0.82	21.10	0.44	3.08	0.05	3.02	73.50	0.01	0.20	55.50	108.00	0.80	33.00	381.00	8.18	18.00	0.92	108.00	40.60	1.50	27.00	5.11	0.01
7203	7.05	0.66	8.24	0.20	4.24	0.05	1.06	81.20	0.01	0.37	26.60	169.00	0.29	27.70	596.00	3.31	14.40	1.12	35.20	29.40	1.72	9.79	8.00	0.01
7204	7.08	1.49	9.46	0.41	5.69	0.05	1.98	80.30	0.01	0.67	43.40	225.00	0.67	39.30	540.00	4.14	15.80	0.83	66.60	62.50	3.04	10.90	7.20	0.05
7204	11.60	2.17	9.51	0.38	4.82	0.05	1.36	93.70	0.01	0.50	31.40	265.00	0.45	41.40	629.00	4.97	18.20	1.26	58.00	44.80	2.87	13.70	12.90	0.04
7207	10.70	2.57	18.30	0.82	6.25	0.57	4.72	105.00	0.01	0.55	54.70	98.80	1.87	16.70	232.00	2.82	15.20	3.16	105.00	43.90	8.75	18.30	19.40	0.01
7208	15.70	2.69	17.20	0.42	7.71	0.05	2.57	43.50	0.01	0.87	56.80	59.50	0.68	16.30	153.00	2.25	8.94	2.30	86.10	47.30	5.24	21.00	27.30	0.00
7209	16.00	5.64	20.10	0.79	3.66	0.05	3.16	58.00	0.01	1.66	53.80	113.00	1.37	25.30	133.00	6.05	23.20	2.60	141.00	81.10	6.62	24.60	50.50	0.01
7210	4.79	1.94	3.18	0.26	0.54	0.05	0.42	34.10	0.01	1.07	8.41	116.00	0.16	15.90	172.00	3.09	12.00	1.26	18.20	51.70	1.86	4.15	94.60	0.00
7211	3.62	0.60	4.18	0.31	1.30	0.05	0.76	52.50	0.01	0.76	12.80	66.30	0.19	12.30	805.00	1.92	10.80	0.75	18.10	63.90	2.45	4.73	35.10	0.00
7212	10.40	3.25	16.30	0.90	6.41	0.23	4.19	94.70	0.01	1.44	87.70	88.40	1.01	26.60	448.00	2.40	9.13	2.47	117.00	213.00	7.05	23.00	47.80	0.00
7213	8.67	2.29	3.46	0.35	2.00	1.91	0.49	50.90	0.06	1.09	17.50	35.50	0.32	10.40	67.50	2.60	7.47	2.62	15.80	46.30	24.00	5.40	106.00	0.00
7214	9.39	2.12	2.79	0.41	2.29	1.84	0.41	44.10	0.02	0.94	18.70	46.40	0.19	14.30	166.00	2.51	9.74	3.47	16.50	59.00	12.80	4.43	69.30	0.00
7215	12.80	2.76	9.33	0.45	2.18	1.30	1.06	56.20	0.01	1.16	28.10	41.10	0.39	21.50	555.00	4.26	11.90	5.34	54.30	74.80	11.50	13.80	36.40	0.00
8001	12.60	4.48	2.14	0.82	0.64	1.88	0.48	91.00	0.01	1.07	16.10	115.00	0.20	206.00	1710.00	102.00	0.02	1.76	15.70	193.00	4.47	2.74	15.50	0.27
8002	18.50	6.03	7.96	0.80	1.57	0.57	1.54	102.00	0.02	1.18	21.50	49.10	0.83	34.50	2900.00	9.70	16.00	3.55	33.00	145.00	8.34	7.18	24.60	0.04
8003	11.70	5.05	2.78	0.59	0.44	1.42	0.60	115.00	0.01	2.39	14.80	85.40	0.26	172.00	3180.00	177.00	19.40	1.25	20.00	270.00	4.45	3.07	15.20	0.08
8004	10.80	2.75	2.04	0.44	0.66	1.35	0.41	158.00	0.01	2.04	9.44	89.10	0.20	181.00	2160.00	174.00	17.90	1.21	16.30	213.00	3.22	2.44	14.80	0.07
8004	11.60	2.58	1.81	0.26	0.34	0.62	0.26	150.00	0.01	1.70	6.79	85.40	0.12	179.00	2260.00	168.00	18.80	1.31	12.70	165.00	2.91	2.25	14.40	0.04
8005	2.23	1.04	3.51	0.34	0.42	2.99	0.95	73.20	0.09	0.48	8.55	92.80	0.57	36.00	2830.00	36.20	7.79	1.05	14.60	123.00	12.00	3.57	2.40	0.07
8006	2.76	0.15	4.69	0.26	0.55	1.32	0.78	97.80	0.01	0.83	8.35	40.70	0.45	16.40	1960.00	15.70	8.10	1.03	15.20	124.00	3.83	3.78	3.93	0.01
8007	3.15	0.15	1.75	0.15	0.22	0.98	0.32	54.70	0.01	2.18	4.56	32.60	0.13	38.00	1560.00	34.20	5.11	0.92	5.92	63.00	2.28	1.74	11.50	0.02
8008	15.10	2.89	2.00	0.35	0.43	0.86	0.31	65.20	0.01	1.67	6.97	58.20	0.17	61.30	1110.00	92.70	9.17	2.59	9.85	72.20	4.11	2.86	23.90	0.03
8009	7.92	1.28	1.67	0.36	0.48	1.96	0.42	71.30	0.01	1.82	7.48	49.00	0.25	66.90	1150.00	31.80	8.25	1.54	7.05	107.00	3.37	1.94	12.50	0.07
8010	28.50	3.41	17.60	0.70	3.65	1.51	2.64	76.40	0.04	1.63	35.80	45.70	1.24	14.80	827.00	6.95	11.90	4.85	56.50	100.00	8.59	14.40	29.50	0.00
8011	7.60	0.77	2.74	0.30	0.57	1.40	0.51	79.30	0.01	1.00	9.23	47.50	0.21	51.20	1720.00	85.10	9.75	1.46	10.50	120.00	3.33	2.81	12.10	0.07
8013	3.94	1.75	7.76	0.38	0.55	1.12	1.06	79.40	0.01	0.82	12.20	125.00	0.45	43.00	1330.00	56.30	10.50	0.85	29.70	124.00	2.63	7.52	4.56	0.11
8014	8.95	0.91	1.85	0.24	0.46	1.16	0.38	55.00	0.01	1.25	8.55	62.20	0.16	44.30	1230.00	81.50	10.30	1.40	11.00	89.70	3.64	2.10	12.80	0.18
8015	3.40	2.03	7.28	0.61	0.96	1.26	1.59	81.30	0.01	5.09	19.00	38.60	0.85	28.20	2080.00	18.90	4.72	0.81	39.90	157.00	2.47	6.50	20.50	0.04
8016	6.20	2.79	8.23	0.43	0.85	0.23	1.14	76.70	0.01	3.19	16.30	35.20	0.57	22.50	1690.00	17.90	4.50	1.12	35.20	102.00	2.67	7.89	22.90	0.02
8016	5.96	2.87	10.40	0.64	1.16	0.76	1.58	98.70	0.01	4.51	21.10	46.40	0.87	32.50	2040.00	22.50	5.70	1.11	52.30	158.00	2.55	10.10	24.20	0.04
8017	2.74	0.15	1.76	0.23	0.26	0.44	0.36	56.50	0.01	1.46	5.55	32.00	0.13	40.50	1530.00	29.80	7.19	0.53	6.30	72.00	2.53	1.45	4.66	0.04
8018	9.04	0.83	2.22	0.21	0.42	0.66	0.33	88.10	0.01	0.85	6.99	55.40	0.10	50.10	742.00	51.10	7.86	1.41	8.21	53.90	3.22	2.31	12.90	0.05
8019	6.61	0.44	1.41	0.07	0.26	0.55	0.18	79.00	0.01	1.00	4.09	41.60	0.07	55.50	1040.00	78.20	7.15	0.92	5.60	68.80	2.15	1.40	8.72	0.05
8020	7.67	3.14	1.41	0.22	0.25	0.90	0.30	44.20	0.01	1.16	6.63	90.90	0.12	119.00	717.00	170.00	19.00	1.20	9.75	66.20	2.34	1.73	9.61	0.27
8021	8.80	2.37	8.25	0.50	0.75	0.43	1.36	106.00	0.01	1.77	28.30	49.80	0.59	98.60	4880.00	12.80	11.70	1.52	46.20	527.00	2.66	8.89	13.20	0.01
8022	2.52	0.15	4.21	0.13	0.30	0.05	0.56	104.00	0.01	0.72	9.77	31.70	0.20	62.20	4290.00	9.89	6.38	0.58	14.40	361.00	1.27	4.01	3.97	0.00

Field Number	Fe_ENZ_ppm	Ga_ENZ_ppb	Gd_ENZ_ppb	Ge_ENZ_ppb	Hf_ENZ_ppb	Hg_ENZ_ppb	Ho_ENZ_ppb	I_ENZ_ppb	In_ENZ_ppb	K_ENZ_ppm	La_ENZ_ppb	Li_ENZ_ppb	Lu_ENZ_ppb	Mg_ENZ_ppm	Mn_ENZ_ppb	Mo_ENZ_ppb	Na_ENZ_ppm	Nb_ENZ_ppb	Nd_ENZ_ppb	Ni_ENZ_ppb	Pb_ENZ_ppb	Pr_ENZ_ppb	Rb_ENZ_ppb	Re_ENZ_ppb
8023	25.80	7.77	8.67	1.03	1.35	0.22	1.04	113.00	0.01	2.30	29.20	61.40	0.40	122.00	2070.00	12.80	9.39	5.94	46.20	235.00	6.19	10.40	59.90	0.00
8025	10.50	1.67	3.48	0.37	0.68	0.11	0.50	74.10	0.01	1.64	9.61	37.10	0.19	66.80	1540.00	11.30	6.46	1.63	15.30	89.10	3.24	4.36	17.30	0.00
8026	6.01	0.15	2.20	0.14	0.49	0.05	0.30	63.90	0.01	1.68	5.00	21.30	0.13	46.00	1430.00	15.20	4.02	0.79	8.33	60.00	2.09	2.05	10.40	0.00
8027	2.60	0.15	3.17	0.26	0.51	0.05	0.56	73.20	0.01	0.74	7.01	42.40	0.20	37.40	3130.00	12.40	5.23	0.53	11.20	92.70	1.25	2.62	3.77	0.00
8028	2.54	0.15	3.32	0.33	0.59	0.82	0.88	77.30	0.01	0.95	12.20	44.80	0.36	44.20	2840.00	14.30	5.58	0.53	15.10	128.00	1.83	2.92	3.66	0.00
8028	3.81	1.44	3.80	0.13	0.41	0.05	0.49	68.90	0.01	0.86	7.84	55.50	0.26	47.80	2750.00	19.80	6.38	0.60	15.60	105.00	1.39	3.78	4.80	0.00
8029	4.38	0.78	2.32	0.38	0.48	0.71	0.56	94.70	0.01	1.18	11.20	32.60	0.24	61.00	3920.00	21.00	6.65	0.68	10.90	140.00	3.92	2.64	5.83	0.00
8030	2.55	0.15	1.58	0.18	0.23	0.05	0.25	64.40	0.01	1.79	4.51	44.00	0.08	38.80	1170.00	46.50	13.30	0.33	5.45	34.80	2.17	1.62	6.54	0.01
8031	8.42	0.15	1.52	0.27	0.50	0.54	0.18	102.00	0.01	1.39	4.05	60.60	0.10	0.04	1430.00	83.60	13.20	1.09	7.10	112.00	1.44	1.73	9.54	0.05
8032	7.60	0.52	1.46	0.20	0.45	0.05	0.23	115.00	0.01	0.71	4.29	63.30	0.11	0.04	2480.00	75.90	12.30	1.13	9.05	203.00	1.86	1.69	9.44	0.02
8033	4.92	1.47	1.17	0.24	0.31	0.38	0.23	139.00	0.01	1.15	3.06	60.20	0.10	135.00	5460.00	39.70	8.82	0.90	6.83	234.00	1.17	1.19	5.47	0.02
8034	6.39	4.71	1.83	0.37	0.39	0.40	0.42	28.00	0.01	5.92	3.46	27.00	0.17	92.00	3980.00	35.70	1.28	0.74	12.30	155.00	2.38	2.25	29.40	0.00
8035	9.83	2.58	1.83	0.40	0.40	0.40	0.29	89.60	0.01	2.36	7.40	49.00	0.11	146.00	4240.00	26.10	8.58	1.41	12.30	271.00	2.52	2.30	14.70	0.01
8037	5.21	2.00	1.83	0.24	0.43	0.85	0.48	47.70	0.01	3.01	7.64	28.20	0.23	87.10	2710.00	27.80	4.23	0.84	10.80	130.00	2.15	1.78	12.80	0.00
8038	12.30	3.01	2.55	0.39	0.56	0.27	0.36	73.40	0.01	4.47	8.38	43.10	0.15	101.00	3110.00	33.00	4.95	1.32	15.00	158.00	2.60	3.00	28.20	0.00
8039	2.46	0.15	2.09	0.14	0.34	2.79	0.58	73.60	0.04	0.81	7.29	35.10	0.39	21.20	1250.00	9.77	4.24	0.93	10.30	73.60	8.34	2.70	6.87	0.00
8040	6.36	0.43	1.48	0.09	0.39	0.88	0.30	64.80	0.01	0.77	5.89	37.70	0.16	25.10	789.00	11.60	3.15	1.25	7.50	38.40	4.09	1.78	17.20	0.00
8040	8.33	0.91	1.83	0.15	0.34	0.73	0.23	74.90	0.01	0.98	6.32	57.50	0.14	37.10	945.00	17.40	4.77	1.33	14.50	48.10	3.22	2.48	19.70	0.00
8041	6.39	0.43	5.60	0.20	0.53	0.87	0.82	129.00	0.01	1.09	17.60	109.00	0.35	29.70	288.00	54.00	5.97	0.93	36.10	62.40	5.05	6.36	12.30	0.02
8042	4.05	0.49	0.96	0.07	0.25	1.05	0.22	573.00	0.01	0.68	4.88	77.30	0.11	46.00	464.00	38.90	49.80	0.82	4.95	17.70	2.63	1.47	9.13	0.00
8043	5.60	1.40	1.35	0.18	0.28	1.42	0.30	76.60	0.01	1.32	7.37	64.60	0.16	53.80	592.00	28.10	6.11	0.88	13.10	36.80	3.35	2.00	12.60	0.00
8044	2.83	0.15	0.97	0.02	0.11	0.05	0.13	58.50	0.01	0.83	3.48	27.10	0.08	22.60	2430.00	22.90	2.68	0.65	5.73	48.20	1.71	1.19	14.00	0.00
8045	5.63	0.57	0.86	0.12	0.30	1.23	0.24	62.60	0.01	1.29	5.98	89.50	0.12	54.60	1010.00	135.00	11.00	1.16	6.12	55.70	2.65	1.62	16.30	0.12
8046	4.15	0.86	0.73	0.11	0.14	0.94	0.19	49.90	0.01	0.77	4.74	115.00	0.09	35.00	459.00	83.70	11.40	0.99	5.13	33.90	2.06	0.86	9.40	0.16
8047	6.83	0.56	1.54	0.14	0.25	0.37	0.20	49.70	0.01	1.08	6.79	169.00	0.08	57.00	365.00	168.00	16.20	1.56	9.81	28.60	2.67	2.17	18.80	0.10
8049	3.39	0.15	1.08	0.02	0.31	0.05	0.18	41.50	0.01	0.91	3.57	58.70	0.08	27.90	1210.00	98.70	8.66	0.49	4.60	36.00	2.20	1.10	12.20	0.03
8050	2.99	0.76	3.10	0.26	0.43	1.62	0.76	29.90	0.01	1.59	13.80	184.00	0.33	15.20	434.00	96.80	11.00	1.13	20.60	47.90	4.18	3.64	15.80	0.62
8051	5.28	0.43	3.73	0.12	0.24	0.05	0.47	64.30	0.01	1.06	9.72	122.00	0.17	14.70	1510.00	125.00	8.92	1.10	22.10	51.80	2.56	4.65	14.60	0.01
8052	2.67	0.15	1.91	0.09	0.30	0.47	0.42	52.40	0.01	1.08	8.49	59.10	0.16	10.60	1040.00	92.00	4.76	0.66	9.50	33.60	2.96	2.07	15.50	0.05
8052	4.72	2.25	2.83	0.13	0.20	0.67	0.42	59.30	0.05	1.49	9.15	115.00	0.19	18.80	1030.00	189.00	7.95	0.81	18.60	45.30	2.50	3.41	23.20	0.06
8053	5.98	2.05	1.41	0.09	0.12	0.24	0.23	65.30	0.01	2.03	4.36	189.00	0.08	67.80	4060.00	152.00	12.90	0.70	10.60	61.40	2.11	1.91	20.40	0.03
8054	4.42	1.36	0.86	0.10	0.21	1.15	0.20	71.80	0.01	0.88	7.33	141.00	0.14	74.90	1840.00	206.00	16.70	1.27	7.91	92.20	2.55	1.63	11.20	0.10
8055	3.70	0.15	0.71	0.13	0.21	0.54	0.18	69.40	0.01	0.99	3.55	256.00	0.08	0.04	4230.00	79.20	63.10	0.52	3.98	106.00	1.50	1.08	10.70	0.49
8056	8.88	0.60	1.16	0.17	0.17	0.38	0.21	53.70	0.01	1.83	4.44	525.00	0.10	0.04	8070.00	355.00	0.02	1.17	8.10	116.00	1.57	1.56	42.90	0.65
8057	7.99	0.37	2.26	0.18	0.17	0.70	0.43	99.00	0.01	1.62	9.54	401.00	0.19	0.04	4430.00	281.00	0.02	0.79	19.10	66.00	2.09	2.94	37.80	1.39
8058	5.13	0.15	0.93	0.05	0.15	0.05	0.18	92.20	0.01	0.86	3.35	323.00	0.07	0.04	6830.00	122.00	0.02	0.55	3.95	102.00	1.42	1.48	15.90	0.69
8059	22.60	0.15	1.20	0.39	0.17	0.47	0.26	43.10	0.01	4.46	6.35	605.00	0.12	0.04	8450.00	111.00	0.02	0.59	9.99	142.00	2.28	1.44	63.80	1.67

Field Number	Fe_ENZ_ppm	Ga_ENZ_ppb	Gd_ENZ_ppb	Ge_ENZ_ppb	Hf_ENZ_ppb	Hg_ENZ_ppb	Ho_ENZ_ppb	I_ENZ_ppb	In_ENZ_ppb	K_ENZ_ppm	La_ENZ_ppb	Li_ENZ_ppb	Lu_ENZ_ppb	Mg_ENZ_ppm	Mn_ENZ_ppb	Mo_ENZ_ppb	Na_ENZ_ppm	Nb_ENZ_ppb	Nd_ENZ_ppb	Ni_ENZ_ppb	Pb_ENZ_ppb	Pr_ENZ_ppb	Rb_ENZ_ppb	Re_ENZ_ppb
8061	5.81	1.21	2.57	0.19	0.55	0.80	0.74	124.00	0.01	0.76	16.00	204.00	0.29	0.04	1320.00	42.80	27.70	0.90	17.70	113.00	3.20	2.95	16.80	0.41
8062	2.77	0.69	3.27	0.28	0.34	0.57	0.85	103.00	0.01	0.40	14.90	242.00	0.35	54.40	299.00	32.30	21.40	0.50	29.70	40.50	2.20	3.91	5.94	0.21
8063	4.16	0.15	2.04	0.09	0.43	0.05	0.37	71.10	0.01	0.61	7.46	199.00	0.13	62.80	503.00	48.40	27.20	0.71	10.10	47.00	2.04	2.18	9.21	0.12
8064	1.42	0.60	2.38	0.18	0.48	0.64	0.68	80.40	0.01	0.56	9.94	190.00	0.28	35.00	404.00	42.80	26.90	0.32	13.60	58.00	2.05	2.48	3.63	0.18
8064	1.85	0.35	2.77	0.13	0.31	0.05	0.41	86.90	0.01	0.51	6.08	258.00	0.18	43.20	401.00	55.70	35.90	0.42	13.90	58.30	1.39	3.16	5.09	0.12
8065	1.76	0.15	1.35	0.02	0.14	0.05	0.25	60.20	0.01	0.51	5.96	61.30	0.08	30.10	1160.00	97.10	8.01	0.28	6.07	44.40	2.78	1.50	5.78	0.07
8066	23.80	0.15	1.39	0.20	0.13	0.05	0.22	54.80	0.01	2.21	6.02	454.00	0.08	0.04	4330.00	229.00	75.70	0.82	11.40	75.80	2.54	1.90	35.10	0.81
8067	3.39	1.33	2.12	0.23	0.41	0.24	0.53	77.40	0.01	2.07	13.00	326.00	0.24	0.04	532.00	90.50	0.02	0.96	16.80	60.10	2.09	2.70	28.80	1.32
8068	4.32	1.66	1.66	0.02	0.24	0.05	0.23	93.50	0.01	1.60	7.07	406.00	0.10	0.04	446.00	193.00	61.40	1.01	13.00	58.10	1.79	2.61	30.10	0.52
8142	35.70	8.09	19.10	1.50	5.46	2.49	4.07	138.00	0.13	0.66	70.30	74.50	2.45	8.28	178.00	21.70	0.02	8.90	100.00	114.00	28.60	18.90	44.20	0.08
8143	24.90	7.78	9.61	1.25	2.26	3.26	2.40	91.10	0.04	2.05	55.70	136.00	1.79	36.70	3370.00	45.90	15.40	6.87	77.90	245.00	23.40	11.10	42.40	0.26
8144	11.10	0.15	0.93	0.52	0.19	1.49	0.14	23.00	0.01	1.84	3.36	128.00	0.12	106.00	2530.00	3000.00	66.70	0.78	4.73	24.80	2.96	1.34	42.90	1.40
8145	1.89	0.33	1.43	0.08	0.17	1.35	0.22	51.20	0.01	1.07	2.63	140.00	0.14	35.10	8130.00	660.00	9.40	0.50	5.45	57.20	1.69	1.31	3.83	0.00
8146	15.00	5.12	16.70	0.76	1.85	1.19	2.28	62.90	0.01	1.61	22.30	155.00	1.37	29.20	832.00	2.00	24.80	3.18	115.00	83.40	9.75	20.70	77.40	0.00
8147	18.40	3.67	12.40	0.58	1.70	0.69	1.53	42.50	0.01	1.19	26.90	117.00	0.82	12.80	455.00	7.55	22.10	7.38	73.80	57.60	13.50	14.20	65.40	0.00
8148	6.18	2.98	13.90	0.51	1.56	0.41	1.70	41.50	0.01	1.02	16.00	84.10	0.86	12.80	448.00	4.22	23.20	1.40	58.50	54.00	3.75	11.70	66.80	0.00
8149	16.00	4.82	14.80	1.09	2.59	1.04	2.75	46.90	0.08	1.74	41.90	119.00	1.67	15.50	627.00	4.54	27.40	5.93	79.30	100.00	12.00	14.90	77.60	0.00
8149	17.60	6.23	16.10	1.19	2.85	1.41	2.69	32.10	0.01	1.66	46.50	101.00	1.63	13.80	435.00	5.14	24.20	7.53	94.90	86.70	16.50	15.20	75.70	0.00
8152	21.10	11.20	9.46	1.26	2.27	1.00	1.64	64.40	0.01	2.10	38.30	156.00	1.36	27.10	448.00	21.90	24.30	9.31	66.40	115.00	19.00	9.89	40.70	0.09
8153	3.21	2.54	4.16	0.43	0.21	0.85	0.54	42.80	0.01	1.45	9.59	114.00	0.26	39.00	1490.00	271.00	13.00	0.68	26.80	75.10	2.99	5.01	8.23	0.09
8154	16.70	3.02	4.05	0.66	1.57	0.36	0.72	35.80	0.01	1.15	24.80	55.50	0.48	15.00	559.00	15.70	11.70	6.81	23.60	69.50	14.30	5.52	28.30	0.03
8155	3.70	2.08	6.98	0.25	0.61	0.05	0.79	53.50	0.01	1.30	15.00	84.50	0.41	22.70	1810.00	87.30	12.30	0.71	34.60	112.00	2.52	7.61	8.23	0.00
8156	12.80	3.13	5.48	0.63	1.31	0.35	1.05	34.60	0.01	1.37	19.40	57.50	0.65	7.44	173.00	8.76	14.70	4.50	31.60	50.60	14.70	4.99	64.00	0.01
8157	27.40	12.10	14.30	1.50	2.82	1.07	2.96	67.90	0.01	2.76	67.80	124.00	1.69	17.30	99.50	14.40	19.40	13.30	144.00	110.00	25.40	19.50	95.10	0.04
8158	16.10	5.26	17.30	1.15	3.72	0.60	3.56	81.30	0.06	1.88	56.70	72.10	2.05	10.20	81.70	10.10	19.50	9.90	96.20	69.90	27.60	17.30	50.40	0.03
8159	21.90	8.51	17.70	1.33	3.14	1.76	4.24	135.00	0.08	2.17	82.00	133.00	2.75	12.30	70.80	12.20	38.70	11.70	131.00	113.00	37.80	19.40	77.50	0.41
8160	22.20	6.00	24.50	0.84	1.56	0.59	2.68	64.00	0.01	1.48	27.60	222.00	1.69	22.90	1770.00	17.40	37.80	5.01	129.00	116.00	10.70	25.00	89.30	0.04
8161	9.73	1.96	9.68	0.52	1.65	1.13	1.98	68.50	0.01	1.07	18.60	73.30	1.16	27.70	3100.00	8.58	12.50	1.59	42.60	112.00	5.59	7.96	15.50	0.01
8162	2.64	0.82	5.87	0.47	0.54	0.82	1.47	75.90	0.01	1.71	19.60	134.00	0.82	38.00	4370.00	129.00	15.30	0.58	28.50	181.00	4.05	5.00	9.56	0.20
8163	2.88	1.20	5.01	0.51	0.42	0.77	1.05	89.10	0.01	1.96	14.60	166.00	0.68	46.80	3080.00	151.00	21.40	0.57	32.50	225.00	4.08	4.93	7.24	0.23
8163	3.22	1.61	4.77	0.49	0.56	0.91	0.97	75.60	0.01	1.89	12.90	191.00	0.58	52.20	3140.00	184.00	22.10	0.63	33.80	189.00	3.14	4.88	10.00	0.19
8166	19.40	9.85	17.10	1.58	2.92	0.56	3.37	79.40	0.01	2.10	46.80	273.00	2.13	21.10	528.00	10.10	36.80	8.19	116.00	183.00	20.80	17.80	122.00	0.02
8167	32.90	8.20	24.50	0.98	3.83	0.38	3.35	127.00	0.02	1.89	50.20	337.00	2.19	19.00	107.00	9.52	55.20	7.99	164.00	121.00	36.20	27.40	134.00	0.13
8168	9.53	3.37	14.90	0.56	1.35	0.11	2.24	57.30	0.01	1.89	24.70	111.00	1.51	23.80	360.00	13.50	23.90	1.67	102.00	114.00	5.97	14.90	48.00	0.00
8169	9.56	1.25	7.71	0.26	0.98	0.35	1.10	71.00	0.01	0.65	16.30	67.20	0.67	26.40	1960.00	24.10	16.20	1.61	31.20	104.00	6.35	7.23	13.80	0.00
8170	8.70	0.86	6.27	0.34	0.93	0.05	1.04	51.50	0.01	0.72	12.50	76.90	0.73	29.00	5590.00	13.10	36.10	1.17	25.60	210.00	4.53	5.75	10.50	0.00
8171	23.60	5.31	20.30	0.87	2.61	0.24	3.03	97.50	0.03	1.22	22.40	816.00	1.72	33.80	4230.00	28.90	0.02	3.65	92.50	284.00	12.50	19.60	75.90	0.22

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Fe_ENZ_ppm	Ga_ENZ_ppb	Gd_ENZ_ppb	Ge_ENZ_ppb	Hf_ENZ_ppb	Hg_ENZ_ppb	Ho_ENZ_ppb	I_ENZ_ppb	In_ENZ_ppb	K_ENZ_ppm	La_ENZ_ppb	Li_ENZ_ppb	Lu_ENZ_ppb	Mg_ENZ_ppm	Mn_ENZ_ppb	Mo_ENZ_ppb	Na_ENZ_ppm	Nb_ENZ_ppb	Nd_ENZ_ppb	Ni_ENZ_ppb	Pb_ENZ_ppb	Pr_ENZ_ppb	Rb_ENZ_ppb	Re_ENZ_ppb
8172	21.00	4.69	25.90	1.36	5.44	0.86	5.84	229.00	0.04	2.08	61.00	247.00	3.17	11.10	72.90	3.70	49.20	5.33	147.00	116.00	39.00	24.20	131.00	0.05
8173	59.40	18.20	28.10	2.60	6.88	1.08	6.10	165.00	0.15	1.71	99.60	256.00	3.03	18.90	323.00	15.40	37.70	14.40	137.00	186.00	64.30	28.20	174.00	0.08
8174	32.20	6.67	23.90	0.94	5.01	0.88	3.67	217.00	0.02	2.00	48.20	281.00	2.50	22.30	70.90	16.40	52.00	6.13	155.00	161.00	27.90	25.50	101.00	0.13
8175	36.30	7.79	25.10	1.13	3.67	0.48	3.72	118.00	0.03	1.59	55.20	237.00	2.31	33.80	342.00	33.00	41.70	6.94	165.00	126.00	14.40	31.00	44.00	0.06
8176	23.60	5.36	25.00	1.31	4.98	0.05	4.80	127.00	0.03	1.49	52.40	140.00	2.44	16.50	155.00	10.70	25.20	6.96	110.00	95.60	15.30	20.80	62.10	0.11
8177	26.90	5.68	27.90	0.88	3.85	0.05	3.39	140.00	0.01	1.41	42.00	194.00	2.10	21.90	148.00	12.50	36.50	5.50	138.00	95.20	11.60	29.10	69.00	0.08
8177	24.30	6.78	29.60	0.99	4.71	0.60	4.05	126.00	0.01	1.76	45.50	215.00	2.60	24.70	152.00	12.90	32.40	4.45	190.00	101.00	12.40	32.60	69.10	0.12
8180	20.00	3.86	16.60	0.92	2.72	0.15	2.69	97.10	0.01	0.99	34.70	163.00	1.79	39.20	2430.00	28.30	28.50	3.74	70.20	167.00	12.00	14.70	30.60	0.00
8181	8.09	1.39	2.12	0.27	0.59	0.84	0.44	49.40	0.01	0.76	9.37	112.00	0.17	86.90	992.00	66.90	19.20	1.19	9.87	74.00	3.30	2.33	8.56	0.13
8182	9.03	1.03	2.05	0.13	0.34	0.05	0.23	41.80	0.01	0.82	6.12	112.00	0.08	0.04	1070.00	63.20	59.30	1.57	8.58	67.40	2.15	2.36	14.30	0.02
8183	4.35	0.15	1.30	0.23	0.24	0.69	0.27	55.40	0.01	2.29	4.56	91.70	0.09	82.40	3690.00	107.00	58.30	0.79	5.34	71.20	2.37	1.28	13.20	0.12
8184	4.44	0.15	1.17	0.21	0.15	0.05	0.14	51.90	0.01	2.15	2.42	101.00	0.05	90.80	4020.00	122.00	0.02	0.62	4.11	82.60	5.85	1.20	17.30	0.11
8184	5.20	0.85	1.13	0.26	0.19	0.50	0.19	60.60	0.01	3.83	4.09	156.00	0.08	139.00	5010.00	180.00	77.80	0.79	7.30	115.00	4.03	1.77	20.10	0.18
8185	12.40	3.72	3.05	0.38	0.52	1.10	0.45	59.60	0.01	1.72	10.50	96.00	0.15	139.00	1120.00	110.00	10.70	2.48	21.00	94.30	3.66	4.23	19.60	0.03
8186	7.43	0.70	1.51	0.17	0.37	0.13	0.24	83.50	0.01	0.94	4.58	53.70	0.09	0.04	1500.00	62.50	20.40	1.26	6.08	87.20	2.05	1.65	10.10	0.08
8187	4.75	0.36	6.35	0.32	0.56	0.44	0.79	41.10	0.01	0.55	10.90	272.00	0.33	98.70	1580.00	71.20	13.00	0.94	28.70	120.00	5.03	6.44	4.11	0.09
8188	5.83	0.78	1.41	0.22	0.34	0.64	0.29	73.40	0.01	1.16	5.07	34.40	0.11	66.10	3890.00	95.10	5.40	0.83	4.93	132.00	3.27	1.38	8.35	0.03
8189	5.29	0.15	1.32	0.19	0.29	0.27	0.28	55.00	0.01	0.89	4.88	71.60	0.12	64.50	2230.00	82.70	10.70	0.75	5.60	96.40	2.58	1.37	6.58	0.10
8194	10.20	3.70	9.48	0.72	2.51	0.05	1.74	46.10	0.01	1.57	30.00	92.50	1.01	19.60	1470.00	12.10	5.76	2.01	40.20	111.00	7.09	9.38	29.10	0.00
8195	17.30	2.24	28.90	0.69	1.72	0.05	3.99	73.30	0.01	1.47	29.30	120.00	2.21	15.00	194.00	13.30	41.60	2.99	111.00	168.00	14.40	20.30	139.00	0.00
8196	3.53	0.32	8.09	0.39	0.31	0.34	0.97	73.20	0.01	0.58	11.90	104.00	0.35	40.50	3820.00	130.00	16.30	0.62	39.60	63.10	2.32	8.99	6.25	0.01
8197	16.50	6.33	7.37	1.23	2.19	1.19	2.00	145.00	0.01	0.82	37.20	275.00	0.96	48.30	264.00	76.80	59.90	4.22	47.30	160.00	19.20	8.84	29.00	0.28
8198	21.80	11.10	17.40	1.06	3.15	4.27	3.81	103.00	0.31	1.74	38.60	155.00	3.25	13.10	113.00	17.60	54.90	6.45	121.00	69.30	65.10	19.00	72.90	0.34
8199	3.88	2.23	10.40	0.49	1.23	4.11	2.36	23.90	0.14	2.03	18.70	35.40	1.78	28.80	4400.00	11.60	8.44	0.70	73.10	134.00	24.00	10.40	8.78	0.00
8200	4.85	1.47	2.51	0.49	0.37	3.17	0.64	22.30	0.04	2.57	9.70	84.00	0.39	31.30	3690.00	63.10	9.63	1.08	20.70	98.30	18.50	3.01	14.60	0.01
8201	2.95	1.12	4.95	0.41	0.58	2.59	1.33	63.00	0.07	0.71	18.50	65.10	0.88	43.90	2180.00	66.70	15.50	0.78	38.20	121.00	16.00	5.48	3.23	0.11
8202	3.05	2.42	1.82	0.35	0.27	1.61	0.42	32.30	0.02	2.21	6.14	110.00	0.27	37.30	2050.00	161.00	14.80	0.71	11.00	113.00	9.41	1.89	11.40	0.08
8203	3.26	0.69	9.10	0.33	1.61	0.93	1.77	76.40	0.04	0.20	18.20	47.50	0.97	23.70	416.00	18.10	12.70	0.73	37.60	66.90	5.24	7.46	2.52	0.04
8204	3.37	0.15	8.35	0.21	1.16	0.83	1.44	66.80	0.01	0.23	17.80	54.20	0.67	23.20	569.00	30.00	14.50	0.77	34.40	62.20	4.08	7.75	3.06	0.03
8204	25.40	4.72	12.60	0.78	1.99	0.21	1.74	82.60	0.03	0.41	26.70	100.00	0.80	39.50	782.00	41.90	20.10	6.76	57.40	102.00	11.70	13.30	39.80	0.05
8207	4.69	2.24	8.70	0.44	1.09	0.49	1.17	84.00	0.01	0.52	16.20	119.00	0.93	39.80	7040.00	78.90	22.50	1.45	56.80	114.00	3.04	9.29	5.63	0.03
8208	31.40	8.85	22.10	1.38	6.29	0.90	5.07	69.20	0.05	0.82	58.10	65.70	2.50	22.10	367.00	9.87	14.50	7.28	77.70	149.00	15.10	18.90	35.10	0.03
8209	21.20	6.22	18.30	0.95	2.96	0.91	2.18	105.00	0.01	1.34	28.00	95.10	1.55	20.00	136.00	19.70	30.50	6.31	102.00	83.70	12.90	19.40	45.60	0.05
8210	10.80	5.96	6.62	0.91	1.30	0.69	1.37	58.80	0.03	1.80	23.80	103.00	1.07	11.90	180.00	12.40	22.90	3.76	50.50	69.30	9.25	6.89	54.00	0.03
8211	18.10	5.50	7.17	0.81	1.22	0.95	1.64	64.80	0.04	1.81	36.30	129.00	1.02	27.30	967.00	29.00	25.50	4.12	62.20	163.00	13.00	8.07	29.40	0.11
8212	17.30	3.95	4.80	0.87	1.47	0.50	1.21	59.30	0.01	1.50	26.90	72.70	0.80	16.60	854.00	24.40	15.50	3.41	30.80	112.00	14.10	4.66	26.30	0.02
8213	19.90	5.98	16.70	1.31	3.45	1.57	3.33	76.90	0.03	1.79	44.80	103.00	2.13	12.30	119.00	9.08	34.60	5.32	97.80	101.00	33.40	15.10	65.10	0.06

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Fe_ENZ_ppm	Ga_ENZ_ppb	Gd_ENZ_ppb	Ge_ENZ_ppb	Hf_ENZ_ppb	Hg_ENZ_ppb	Ho_ENZ_ppb	I_ENZ_ppb	In_ENZ_ppb	K_ENZ_ppm	La_ENZ_ppb	Li_ENZ_ppb	Lu_ENZ_ppb	Mg_ENZ_ppm	Mn_ENZ_ppb	Mo_ENZ_ppb	Na_ENZ_ppm	Nb_ENZ_ppb	Nd_ENZ_ppb	Ni_ENZ_ppb	Pb_ENZ_ppb	Pr_ENZ_ppb	Rb_ENZ_ppb	Re_ENZ_ppb
8214	18.20	3.97	8.81	0.61	1.32	0.42	1.16	59.80	0.01	1.04	18.80	63.90	0.61	18.70	1450.00	11.30	18.60	3.91	36.80	86.60	10.00	9.02	30.40	0.00
8215	16.60	5.59	10.10	1.06	1.95	1.52	2.30	61.60	0.01	1.76	29.60	59.20	1.49	17.70	313.00	8.97	19.30	3.48	68.70	110.00	10.30	10.50	39.00	0.00
NAT98-282	14.80	15.40	2.14	1.01	0.57	4.63	0.50	44.20	0.04	6.08	14.60	146.00	0.26	159.00	3640.00	294.00	26.60	4.16	17.50	278.00	6.40	2.78	57.80	0.21
NAT98-282	8.19	3.32	1.60	0.47	0.32	0.61	0.29	47.80	0.01	5.45	9.18	154.00	0.12	201.00	6530.00	283.00	26.40	2.66	8.77	257.00	2.89	1.61	35.10	0.19
Till2	7.28	5.25	7.68	0.35	0.77	1.04	0.99	192.00	0.01	5.59	25.30	11.20	0.45	44.10	8120.00	50.20	156.00	4.86	40.70	31.80	6.58	10.40	264.00	0.02
NAT98-282	12.00	4.43	1.92	0.45	0.62	1.71	0.58	28.80	0.08	2.77	20.20	160.00	0.26	81.00	1930.00	230.00	18.30	3.04	17.10	129.00	8.13	3.04	53.20	0.19
NAT98-282	10.50	4.52	2.64	0.62	0.37	1.42	0.49	21.00	0.01	3.43	13.00	173.00	0.22	117.00	2980.00	301.00	17.90	1.38	17.80	154.00	6.40	3.42	37.90	0.14
NAT98-282	11.70	3.28	1.71	0.37	0.41	1.35	0.27	25.60	0.01	2.23	9.54	150.00	0.15	111.00	2200.00	340.00	20.20	2.09	12.80	113.00	7.15	2.77	42.70	0.13
Till2	5.62	2.14	6.58	0.36	0.95	1.12	1.37	117.00	0.01	3.83	37.80	13.50	0.56	30.00	8910.00	42.10	70.10	2.91	43.30	21.90	7.92	8.63	213.00	0.02
NAT98-282	8.31	1.22	1.20	0.41	0.42	0.56	0.23	32.60	0.01	3.88	5.86	123.00	0.07	185.00	5320.00	229.00	25.80	1.52	6.35	206.00	2.67	1.32	27.50	0.14
NAT98-282	5.99	0.73	1.24	0.13	0.35	0.95	0.24	26.50	0.01	1.38	7.71	110.00	0.10	43.20	1320.00	145.00	10.80	0.99	6.38	62.40	4.93	1.46	33.10	0.14
Till2	13.70	2.43	8.52	0.67	1.41	0.25	1.09	157.00	0.01	7.80	28.50	16.10	0.46	59.70	10800.00	82.30	0.02	5.09	57.90	42.10	8.00	12.90	306.00	0.01
Till3	3.75	4.96	3.91	1.59	0.84	0.89	0.55	129.00	0.02	1.30	20.80	18.10	0.16	65.70	3280.00	49.70	37.90	1.80	25.20	57.80	15.00	5.31	15.10	0.03
Till2	8.31	3.53	5.23	0.63	0.85	0.65	1.02	220.00	0.01	6.08	25.90	17.10	0.48	44.90	8240.00	67.70	83.10	3.92	45.60	38.50	10.40	6.89	250.00	0.02
Till3	4.04	2.92	3.76	1.39	0.74	0.82	0.63	125.00	0.01	1.48	24.00	18.50	0.19	103.00	3420.00	45.60	36.80	1.22	25.80	62.00	12.10	5.23	17.60	0.01
Till3	5.00	12.80	3.88	1.81	0.88	2.06	0.77	132.00	0.22	1.53	23.60	20.60	0.18	144.00	3510.00	44.90	83.90	2.24	21.70	54.90	21.30	5.42	16.90	0.01
Till2	9.94	3.49	5.61	0.64	1.27	0.39	1.22	129.00	0.01	4.18	37.20	13.60	0.50	30.80	9140.00	44.40	65.30	5.62	33.30	33.00	12.70	6.83	220.00	0.01
Till2	10.10	7.42	7.17	0.60	0.87	0.81	1.14	152.00	0.01	7.77	51.70	15.80	0.52	71.20	7630.00	62.80	138.00	5.27	59.00	43.50	8.10	9.67	264.00	0.02
Till2	14.70	8.97	8.65	1.39	1.43	0.76	1.91	177.00	0.01	12.00	47.20	24.70	0.86	111.00	16500.00	77.70	0.02	5.55	66.90	84.30	12.00	10.80	282.00	0.03
Till3	6.50	1.26	3.79	1.40	0.67	0.81	0.56	120.00	0.01	1.00	20.30	16.60	0.13	95.00	3190.00	51.20	46.10	1.73	24.70	49.40	12.20	5.13	12.80	0.04
Till3	5.46	1.48	3.66	1.10	0.71	0.53	0.45	211.00	0.01	1.09	16.90	17.20	0.09	93.60	3140.00	37.60	43.80	1.66	17.50	40.20	13.80	4.40	17.70	0.00
Till3	3.44	3.45	4.20	1.76	0.72	0.78	0.52	124.00	0.01	1.17	21.10	25.20	0.14	61.30	3400.00	53.30	33.40	2.38	25.30	60.60	19.80	7.14	22.70	0.01
NAT98-282	9.51	2.54	1.05	0.51	0.45	1.18	0.19	26.70	0.01	5.43	5.05	204.00	0.09	0.04	5790.00	382.00	23.70	1.57	8.28	231.00	2.79	1.79	33.60	0.17
Till2	3.04	0.65	5.56	0.23	0.77	0.61	1.27	143.00	0.01	3.38	30.10	11.70	0.58	23.40	6500.00	40.10	69.10	2.21	39.90	17.60	4.84	7.27	204.00	0.03
Till3	3.00	1.35	4.32	1.11	0.75	0.57	0.49	128.00	0.05	0.67	16.60	18.30	0.12	48.90	3540.00	40.10	31.80	2.53	19.30	42.20	14.20	4.75	16.30	0.01
Till3	4.21	4.18	4.79	1.41	0.83	0.93	0.57	125.00	0.03	1.52	20.30	21.30	0.12	118.00	3120.00	51.50	54.10	3.19	26.90	53.00	14.80	6.19	19.40	0.01

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Ru_ENZ_ppb	S_ENZ_ppm	Sb_ENZ_ppb	Sc_ENZ_ppb	Se_ENZ_ppb	Sm_ENZ_ppb	Sn_ENZ_ppb	Sr_ENZ_ppb	Ta_ENZ_ppb	Tb_ENZ_ppb	Th_ENZ_ppb	Ti_ENZ_ppb	Tl_ENZ_ppb	Tm_ENZ_ppb	U_ENZ_ppb	V_ENZ_ppb	W_ENZ_ppb	Y_ENZ_ppb	Yb_ENZ_ppb	Zn_ENZ_ppb	Zr_ENZ_ppb
5001	0.25	107.00	16.30	0.50	8.96	1.89	0.10	991.00	0.14	0.57	2.73	277.00	0.14	0.30	1.56	393.00	1.07	17.80	1.28	274.00	25.70
5002	0.25	281.00	41.80	0.50	14.80	1.83	0.34	4260.00	0.16	0.41	5.19	431.00	0.35	0.20	9.24	613.00	2.19	15.90	1.22	128.00	40.90
5003	0.25	227.00	30.00	0.50	12.00	1.60	0.10	1850.00	0.12	0.27	3.28	290.00	0.32	0.16	2.87	443.00	1.01	13.70	0.99	251.00	40.00
5004	0.25	227.00	26.60	0.50	10.30	1.18	0.10	2410.00	0.13	0.26	3.37	209.00	0.27	0.13	7.19	289.00	1.15	10.90	0.90	140.00	37.00
5005	0.25	111.00	13.40	0.50	4.66	2.39	0.10	560.00	0.12	0.37	5.37	272.00	0.30	0.18	4.26	358.00	0.05	14.80	1.28	304.00	73.90
5006	0.25	123.00	11.50	0.50	4.32	1.07	0.10	793.00	0.10	0.32	3.51	179.00	0.21	0.26	4.57	294.00	0.53	9.98	1.05	444.00	42.30
5007	0.25	149.00	11.90	0.50	9.76	1.85	0.35	1390.00	0.15	0.55	6.13	539.00	0.19	0.33	1.96	924.00	1.62	14.90	1.35	487.00	68.90
5008	0.25	145.00	28.80	0.50	7.95	1.65	0.10	1460.00	0.11	0.29	5.17	225.00	0.11	0.16	3.44	746.00	1.36	14.20	0.97	144.00	46.00
5009	0.63	265.00	43.70	0.50	32.90	2.19	0.10	2360.00	0.11	0.38	4.17	215.00	0.75	0.22	4.35	814.00	0.60	19.10	1.43	138.00	72.60
5010	0.25	143.00	29.90	0.50	18.20	1.61	0.10	2390.00	0.14	0.25	4.53	162.00	0.31	0.17	4.06	400.00	0.65	12.90	1.09	58.10	58.30
5010	0.25	147.00	20.00	0.50	15.70	1.03	0.10	1950.00	0.16	0.26	3.18	198.00	0.21	0.21	3.95	303.00	0.62	9.79	0.91	77.60	53.10
5011	0.25	433.00	13.50	0.50	15.60	0.44	0.10	2300.00	0.12	0.10	1.27	136.00	0.39	0.07	1.76	199.00	0.19	3.22	0.27	81.60	14.10
5013	0.25	191.00	14.40	0.50	20.50	1.73	0.10	2270.00	0.14	0.53	2.17	253.00	0.12	0.29	1.34	381.00	0.87	13.70	1.06	116.00	32.30
5014	0.25	629.00	10.60	0.50	13.80	0.82	0.10	4840.00	0.16	0.29	2.72	227.00	0.36	0.20	5.61	247.00	0.87	8.41	0.84	109.00	26.30
5015	0.25	2610.00	8.34	0.50	8.26	0.47	0.10	10700.00	0.12	0.15	1.59	106.00	0.15	0.09	9.01	106.00	0.05	4.52	0.35	118.00	19.60
5016	0.25	2020.00	11.90	26.90	12.40	1.02	0.10	11300.00	0.12	0.19	3.59	160.00	0.14	0.10	9.56	180.00	0.33	10.20	0.63	81.70	28.00
5017	0.25	270.00	14.10	0.50	26.60	0.85	0.10	5680.00	0.15	0.21	3.88	142.00	0.26	0.13	28.50	443.00	1.93	6.33	0.67	17.40	16.10
5018	0.25	293.00	13.40	0.50	12.50	0.71	0.10	3270.00	0.15	0.24	1.69	252.00	0.28	0.16	6.91	158.00	0.93	8.46	0.61	91.00	28.50
5019	0.25	371.00	24.00	0.50	23.40	0.98	0.10	4560.00	0.16	0.29	2.33	203.00	0.27	0.16	11.80	352.00	0.94	8.17	0.90	46.90	33.30
5020	0.25	376.00	26.80	0.50	18.20	1.50	0.10	2790.00	0.11	0.29	2.83	149.00	0.21	0.18	5.68	481.00	0.39	13.90	0.94	131.00	47.30
5021	0.25	579.00	7.09	0.50	5.00	0.70	0.10	2830.00	0.12	0.13	1.76	251.00	0.16	0.06	5.31	379.00	0.56	6.25	0.32	199.00	12.60
5022	0.25	307.00	25.40	0.50	13.20	1.05	0.10	2350.00	0.17	0.17	3.38	300.00	0.38	0.10	13.80	623.00	0.68	8.00	0.79	105.00	31.90
5023	0.25	302.00	29.90	0.50	41.40	0.71	0.10	2300.00	0.16	0.27	1.21	270.00	0.25	0.19	1.37	1950.00	0.76	9.20	0.83	99.60	21.10
5023	0.25	188.00	32.40	0.50	28.40	2.96	0.10	2300.00	0.20	0.75	5.65	427.00	0.44	0.40	2.23	2010.00	2.45	21.70	2.37	136.00	44.80
5025	0.25	3050.00	12.20	10.50	8.18	1.05	0.10	12000.00	0.16	0.19	2.40	229.00	0.24	0.09	33.60	553.00	0.73	7.65	0.42	156.00	14.80
5026	0.25	31.10	10.90	0.50	7.99	0.65	4.37	3690.00	0.11	0.03	0.58	125.00	0.14	0.01	2.37	873.00	0.75	2.85	0.12	96.60	19.50
7001	1.20	17.60	1.79	14.40	5.69	1.04	1.51	342.00	0.16	0.39	6.88	543.00	0.19	0.13	1.58	39.10	0.57	6.20	2.54	13.70	49.90
7002	2.82	27.60	3.68	26.90	9.64	5.98	2.25	446.00	0.19	1.18	19.40	896.00	0.46	0.38	3.09	88.20	1.07	30.10	2.23	15.50	110.00
7003	0.54	12.50	2.30	26.30	5.54	2.36	1.10	299.00	0.25	0.55	16.60	1150.00	0.26	0.14	2.68	80.30	0.41	8.58	0.83	31.10	118.00
7004	1.00	0.50	2.80	0.50	4.26	4.15	0.72	310.00	0.16	0.57	39.70	735.00	0.28	0.21	4.85	80.60	0.51	17.90	1.52	20.80	200.00
7004	0.25	0.50	2.23	13.40	5.91	3.03	0.76	295.00	0.26	0.66	24.30	1040.00	0.29	0.30	3.86	90.10	0.43	14.60	1.43	48.50	243.00
7005	0.25	0.50	1.31	0.50	1.00	0.79	0.50	292.00	0.08	0.12	5.97	170.00	0.12	0.04	1.25	25.90	0.44	2.87	0.31	2.50	28.30
7006	0.85	0.50	1.85	0.50	3.98	3.44	0.25	298.00	0.11	0.61	20.70	407.00	0.19	0.22	3.38	56.30	0.37	13.10	1.33	13.40	130.00
7007	1.74	14.20	3.42	11.40	11.70	5.59	1.17	470.00	0.09	1.52	14.50	272.00	0.16	0.55	3.72	80.80	0.58	28.70	3.25	7.06	147.00
7008	0.25	0.50	1.88	0.50	3.67	3.86	0.23	286.00	0.13	0.59	23.60	401.00	0.22	0.21	3.26	54.50	0.31	19.10	1.33	23.80	133.00
7009	2.35	0.50	2.83	15.30	3.63	7.45	0.91	438.00	0.18	1.23	45.70	770.00	0.35	0.39	4.81	88.40	0.79	43.40	2.89	37.50	223.00
7010	0.98	14.10	4.26	31.90	9.54	10.80	1.00	533.00	0.12	2.69	29.10	281.00	0.20	0.83	5.36	92.70	0.47	58.70	4.61	7.25	327.00

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Ru_ENZ_ppb	S_ENZ_ppm	Sb_ENZ_ppb	Sc_ENZ_ppb	Se_ENZ_ppb	Sm_ENZ_ppb	Sn_ENZ_ppb	Sr_ENZ_ppb	Ta_ENZ_ppb	Tb_ENZ_ppb	Th_ENZ_ppb	Ti_ENZ_ppb	Tl_ENZ_ppb	Tm_ENZ_ppb	U_ENZ_ppb	V_ENZ_ppb	W_ENZ_ppb	Y_ENZ_ppb	Yb_ENZ_ppb	Zn_ENZ_ppb	Zr_ENZ_ppb
7011	0.25	0.50	1.05	0.50	1.11	1.38	0.36	277.00	0.08	0.31	9.92	302.00	0.20	0.11	1.99	26.00	0.26	8.60	0.58	8.61	54.10
7013	0.25	0.50	6.79	32.70	8.08	20.40	0.89	601.00	0.26	2.63	55.60	1070.00	0.47	1.07	9.28	185.00	0.66	82.10	8.38	39.50	468.00
7014	2.32	0.50	2.68	29.40	8.09	10.70	1.01	473.00	0.16	2.48	38.20	845.00	0.45	0.72	6.19	89.00	0.77	61.10	5.08	28.70	267.00
7015	0.25	0.50	0.96	0.50	1.81	0.90	0.41	198.00	0.06	0.17	2.90	645.00	0.09	0.07	1.58	42.50	0.32	4.47	0.42	25.10	24.20
7016	2.54	0.50	1.70	0.50	8.54	1.44	1.33	438.00	0.11	0.40	3.25	475.00	0.20	0.14	1.55	87.80	0.86	9.04	0.75	18.80	28.20
7016	0.25	0.50	1.02	0.50	2.06	1.15	0.37	206.00	0.09	0.23	3.10	247.00	0.09	0.08	1.50	50.50	0.24	6.01	0.52	10.50	30.70
7017	2.26	0.50	3.84	29.40	6.90	9.15	1.72	502.00	0.20	1.64	25.60	1190.00	0.39	0.58	4.14	127.00	1.26	49.80	3.90	30.10	156.00
7018	0.25	0.50	2.89	22.80	6.87	5.52	1.26	604.00	0.23	1.22	27.00	1260.00	0.45	0.41	4.62	106.00	1.07	33.20	2.62	32.60	171.00
7019	1.52	13.30	7.33	21.00	11.20	12.20	1.28	650.00	0.13	2.60	22.80	331.00	0.20	0.93	4.22	78.10	0.90	66.20	6.68	14.60	216.00
7020	1.80	0.50	2.39	29.70	3.07	2.88	0.93	572.00	0.27	0.49	13.40	1540.00	0.33	0.27	3.19	109.00	0.79	14.00	1.29	74.60	164.00
7021	1.44	0.50	1.35	0.50	3.76	2.56	0.70	542.00	0.11	0.62	12.60	528.00	0.13	0.24	1.73	68.00	0.53	15.40	1.00	21.10	87.00
7022	2.61	22.30	3.40	45.30	7.19	11.00	1.72	924.00	0.26	2.33	21.00	1390.00	0.42	0.82	4.16	181.00	1.10	68.70	4.97	49.70	320.00
7023	0.25	0.50	1.35	0.50	2.92	4.28	0.10	307.00	0.13	1.00	22.00	466.00	0.14	0.34	3.77	53.50	0.28	24.80	1.44	31.20	174.00
7025	0.25	0.50	1.43	0.50	1.99	4.80	0.28	315.00	0.11	1.08	16.20	390.00	0.14	0.42	2.36	61.30	0.35	22.30	2.18	21.50	128.00
7026	1.83	16.80	2.44	0.50	3.33	3.95	0.53	420.00	0.08	0.58	17.10	265.00	0.16	0.23	2.13	97.30	0.64	19.10	1.53	8.45	123.00
7027	0.92	0.50	1.58	0.50	2.94	6.18	0.28	298.00	0.09	0.89	14.90	326.00	0.18	0.38	2.26	97.50	0.32	28.20	2.16	14.30	126.00
7028	0.87	16.10	2.60	17.70	9.86	13.40	0.82	436.00	0.12	2.69	20.50	510.00	0.19	1.20	3.08	119.00	0.64	82.00	7.35	23.50	245.00
7028	0.25	12.60	1.94	12.90	9.64	10.60	0.52	374.00	0.09	2.50	18.10	349.00	0.11	1.06	2.88	84.50	0.45	59.70	5.79	12.10	213.00
7029	1.49	15.60	5.84	116.00	10.40	18.30	2.78	691.00	0.97	2.08	54.70	6670.00	1.59	0.83	7.87	468.00	2.45	61.60	7.03	132.00	434.00
7030	0.25	14.00	5.92	0.50	4.75	6.24	0.30	641.00	0.10	1.14	2.41	113.00	0.05	0.54	0.66	125.00	0.29	48.50	2.62	8.03	59.90
7031	0.25	14.90	2.46	0.50	5.96	5.96	0.10	467.00	0.08	0.88	3.73	106.00	0.04	0.31	1.48	96.80	0.33	31.00	1.88	16.70	69.70
7032	2.18	0.50	8.94	10.90	9.66	13.10	0.53	372.00	0.18	1.84	8.09	258.00	0.07	0.79	1.36	147.00	0.41	83.80	5.04	11.40	178.00
7033	0.25	0.50	3.69	0.50	7.99	9.97	0.99	595.00	0.17	1.56	6.07	212.00	0.12	0.46	0.86	84.50	1.87	40.70	3.69	2.50	70.80
7034	0.25	0.50	2.50	0.50	4.74	2.97	0.10	192.00	0.12	0.37	1.45	93.90	0.20	0.17	0.23	44.50	0.59	16.00	1.14	2.50	21.70
7035	1.12	0.50	4.85	12.20	6.73	11.20	0.71	377.00	0.20	2.07	12.20	318.00	0.15	0.64	3.37	83.70	1.41	50.80	5.08	8.14	154.00
7037	0.58	0.50	1.24	0.50	2.71	1.56	0.22	206.00	0.11	0.21	5.18	348.00	0.09	0.07	0.98	72.90	0.69	6.54	0.45	11.80	41.80
7038	0.85	11.80	4.25	22.40	9.29	7.93	0.82	446.00	0.16	1.34	16.60	317.00	0.27	0.51	2.05	106.00	0.98	43.90	3.99	5.59	155.00
7039	0.25	11.90	3.50	24.70	7.96	7.56	0.89	475.00	0.21	1.52	24.30	1030.00	0.36	0.56	4.82	129.00	1.72	34.70	4.20	35.00	192.00
7040	0.25	0.50	2.48	0.50	5.13	6.78	0.10	273.00	0.20	1.19	26.90	669.00	0.24	0.53	6.57	91.20	0.53	31.50	2.92	39.90	236.00
7040	0.73	0.50	2.27	12.70	3.07	6.95	0.36	253.00	0.25	1.11	26.40	960.00	0.24	0.48	6.51	80.40	0.56	32.70	2.80	38.60	238.00
7041	1.31	14.80	2.79	14.60	8.44	13.90	0.89	700.00	0.16	2.14	13.40	441.00	0.29	0.84	2.39	121.00	1.15	85.80	6.99	13.40	126.00
7042	0.25	14.80	5.47	0.50	6.76	1.46	0.73	2190.00	0.14	0.33	2.50	203.00	0.12	0.12	0.72	59.20	1.01	9.80	0.72	8.86	22.00
7043	2.05	0.50	2.61	26.20	7.05	6.07	0.85	387.00	0.28	0.82	29.80	1570.00	0.33	0.31	5.35	154.00	1.36	29.30	2.90	39.10	185.00
7044	1.02	12.50	1.98	17.80	8.06	6.83	0.50	408.00	0.18	1.81	11.40	771.00	0.28	0.64	2.69	120.00	0.82	37.90	3.58	24.60	184.00
7045	2.07	85.50	15.50	11.10	9.00	14.50	0.58	1500.00	0.15	2.77	4.84	123.00	0.07	1.10	0.61	241.00	0.64	94.60	8.00	2.50	91.20
7046	0.25	66.10	9.09	0.50	12.20	12.70	0.10	725.00	0.11	1.93	7.17	80.40	0.04	0.80	1.67	147.00	0.17	80.00	5.21	2.50	156.00
7047	0.25	34.60	15.10	11.90	12.30	6.03	0.55	859.00	0.12	1.19	2.81	183.00	0.04	0.56	0.38	316.00	0.48	39.90	2.79	6.88	48.20

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Ru_ENZ_ppb	S_ENZ_ppm	Sb_ENZ_ppb	Sc_ENZ_ppb	Se_ENZ_ppb	Sm_ENZ_ppb	Sn_ENZ_ppb	Sr_ENZ_ppb	Ta_ENZ_ppb	Tb_ENZ_ppb	Th_ENZ_ppb	Ti_ENZ_ppb	Tl_ENZ_ppb	Tm_ENZ_ppb	U_ENZ_ppb	V_ENZ_ppb	W_ENZ_ppb	Y_ENZ_ppb	Yb_ENZ_ppb	Zn_ENZ_ppb	Zr_ENZ_ppb
7049	0.25	10.20	2.89	0.50	11.30	8.66	0.10	681.00	0.11	1.53	12.00	131.00	0.04	0.61	2.77	97.20	0.05	37.30	3.32	12.20	146.00
7050	0.88	0.50	6.35	0.50	5.77	3.90	0.10	645.00	0.11	0.69	1.91	100.00	0.03	0.32	0.52	156.00	0.19	27.60	1.78	14.70	33.40
7051	0.82	17.40	2.41	35.20	19.80	8.17	0.92	712.00	0.23	1.83	46.60	1070.00	0.33	0.70	30.90	100.00	0.87	43.60	3.92	33.60	317.00
7052	1.02	0.50	3.60	51.90	17.40	12.40	0.93	979.00	0.30	2.44	57.60	1690.00	0.34	0.95	30.80	164.00	1.20	52.40	5.73	85.60	383.00
7052	0.25	14.20	2.29	44.00	18.10	9.62	0.65	655.00	0.26	2.05	48.30	1410.00	0.28	0.81	30.20	109.00	0.79	49.00	4.34	42.90	424.00
7053	0.25	36.10	9.07	16.80	4.92	4.40	0.52	1110.00	0.13	0.81	2.47	250.00	0.09	0.31	0.77	391.00	0.63	21.70	1.82	14.00	35.90
7054	0.25	13.70	16.10	0.50	10.90	8.70	0.27	920.00	0.14	1.51	4.39	147.00	0.02	0.65	1.20	306.00	0.18	45.50	3.45	8.87	114.00
7055	0.25	0.50	1.09	0.50	4.82	2.40	0.10	420.00	0.16	0.40	12.50	722.00	0.15	0.19	2.90	71.30	0.35	13.50	0.96	27.10	87.30
7056	0.25	0.50	1.38	0.50	7.46	3.55	0.10	289.00	0.19	0.52	32.20	752.00	0.26	0.20	4.77	60.50	0.50	16.50	1.18	41.80	160.00
7057	0.62	12.80	3.53	12.60	18.40	7.33	0.40	979.00	0.13	0.92	26.70	723.00	0.24	0.34	5.89	118.00	0.88	41.20	2.70	35.80	168.00
7058	0.25	0.50	1.94	0.50	4.31	4.29	0.10	623.00	0.14	0.61	23.80	543.00	0.16	0.23	6.38	84.50	0.43	21.90	1.63	20.70	158.00
7059	0.76	20.30	9.20	43.90	14.40	5.82	1.00	1730.00	0.20	0.90	77.70	1020.00	0.20	0.27	39.20	195.00	0.82	25.30	2.31	28.30	600.00
7061	0.74	10.70	3.87	67.70	12.40	10.50	1.08	643.00	0.45	2.17	62.00	2950.00	0.45	0.70	10.30	169.00	1.58	45.80	5.27	43.80	500.00
7062	0.25	0.50	7.23	0.50	3.58	7.55	0.10	947.00	0.07	1.03	5.83	103.00	0.01	0.40	2.77	190.00	0.14	39.30	2.85	2.50	79.70
7063	0.25	11.80	14.30	0.50	9.30	13.70	0.10	1520.00	0.09	1.72	10.40	149.00	0.03	0.66	6.02	226.00	0.31	70.70	4.31	6.36	233.00
7064	0.25	0.50	6.66	0.50	5.57	8.11	0.10	1150.00	0.10	1.36	7.68	111.00	0.02	0.64	5.34	133.00	0.17	46.50	3.29	2.50	178.00
7064	0.25	0.50	7.08	0.50	5.03	8.12	0.10	1190.00	0.10	1.19	7.48	117.00	0.01	0.57	5.34	135.00	0.29	41.70	3.38	2.50	156.00
7065	0.25	11.10	5.02	18.60	5.17	11.70	0.42	689.00	0.17	1.70	23.40	799.00	0.19	0.58	10.90	215.00	0.60	67.40	4.69	20.60	200.00
7066	0.67	14.80	5.43	48.70	12.30	20.70	0.43	703.00	0.23	2.43	99.00	1540.00	0.34	0.80	12.50	172.00	0.54	75.40	6.11	28.70	858.00
7067	0.25	0.50	4.86	44.60	10.40	17.60	0.45	738.00	0.32	3.55	61.20	1610.00	0.32	1.38	10.80	155.00	0.70	83.50	7.48	24.10	702.00
7068	0.25	0.50	3.49	37.80	7.53	14.00	0.10	462.00	0.25	2.73	52.50	1150.00	0.24	1.14	32.50	107.00	0.52	78.30	5.78	16.10	585.00
7142	0.80	12.00	3.67	50.30	16.90	37.70	0.43	266.00	0.33	7.58	38.40	826.00	0.65	2.54	22.20	80.50	1.39	120.00	19.20	13.10	316.00
7143	0.25	0.50	1.09	22.50	9.82	15.90	0.10	297.00	0.16	3.50	29.00	254.00	0.36	1.47	13.90	29.10	0.34	72.10	6.94	17.00	265.00
7144	0.25	46.90	4.71	25.40	19.40	2.10	0.31	10400.00	0.14	0.38	4.44	111.00	0.25	0.15	2.41	81.60	1.23	12.50	0.95	5.16	14.00
7145	0.25	0.50	1.66	0.50	7.06	2.42	0.10	1720.00	0.13	0.65	0.84	83.20	0.02	0.31	0.43	70.50	0.40	21.60	1.58	2.50	11.10
7146	0.25	0.50	0.59	12.60	10.70	7.94	0.10	406.00	0.14	2.34	14.60	337.00	0.33	0.75	5.07	31.60	0.63	47.10	3.74	5.86	116.00
7147	0.25	0.50	0.60	0.50	7.24	11.70	2.67	450.00	0.15	3.28	19.80	408.00	0.54	0.94	5.78	31.30	0.91	63.50	4.85	2.50	136.00
7148	0.25	0.50	0.37	0.50	4.41	6.99	0.10	270.00	0.11	1.91	25.70	167.00	0.48	0.58	6.46	13.80	0.34	42.70	2.51	2.50	111.00
7149	0.25	0.50	0.42	0.50	5.54	8.91	0.10	385.00	0.11	1.55	30.40	242.00	0.57	0.45	7.33	18.20	0.49	46.10	2.76	5.66	142.00
7149	0.25	0.50	0.39	0.50	4.83	8.07	0.10	278.00	0.15	1.69	30.60	374.00	0.47	0.49	6.50	19.90	0.39	41.70	2.48	9.43	130.00
7152	0.25	0.50	0.81	26.50	8.69	6.43	0.55	301.00	0.15	1.46	12.10	565.00	0.50	0.59	5.80	45.20	0.25	33.90	2.51	18.60	127.00
7153	0.25	0.50	4.35	16.60	11.50	16.90	0.26	1950.00	0.17	4.11	4.60	384.00	0.16	1.94	2.82	197.00	1.12	89.50	14.00	6.80	93.20
7154	4.16	14.50	2.07	27.80	13.70	8.54	0.85	379.00	0.22	2.23	4.04	577.00	0.52	0.70	5.83	95.10	0.33	37.50	3.95	14.80	50.60
7155	0.25	17.80	4.08	11.10	18.40	11.00	0.10	666.00	0.29	2.79	5.95	235.00	0.05	1.66	21.00	167.00	0.32	115.00	7.54	163.00	223.00
7156	0.25	0.50	1.54	0.50	14.00	6.35	0.26	338.00	0.21	1.68	12.30	414.00	0.25	0.78	10.90	56.10	0.21	57.50	2.86	39.40	137.00
7157	0.25	12.70	3.52	35.50	15.30	12.70	0.75	517.00	0.48	2.74	31.10	1680.00	0.58	1.08	8.89	108.00	1.12	114.00	6.82	33.60	197.00
7158	0.25	11.30	3.44	0.50	15.00	12.50	0.31	403.00	0.21	2.62	21.20	608.00	0.17	1.08	10.20	105.00	0.42	115.00	6.64	15.30	145.00

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Ru_ENZ_ppb	S_ENZ_ppm	Sb_ENZ_ppb	Sc_ENZ_ppb	Se_ENZ_ppb	Sm_ENZ_ppb	Sn_ENZ_ppb	Sr_ENZ_ppb	Ta_ENZ_ppb	Tb_ENZ_ppb	Th_ENZ_ppb	Ti_ENZ_ppb	Tl_ENZ_ppb	Tm_ENZ_ppb	U_ENZ_ppb	V_ENZ_ppb	W_ENZ_ppb	Y_ENZ_ppb	Yb_ENZ_ppb	Zn_ENZ_ppb	Zr_ENZ_ppb
7159	0.25	10.70	2.18	36.10	17.50	14.50	0.64	339.00	0.29	3.87	19.30	1170.00	0.52	1.65	12.20	79.50	0.72	87.90	8.78	23.50	176.00
7160	0.25	0.50	1.23	14.00	7.01	5.84	0.44	221.00	0.33	1.64	5.92	1280.00	0.47	0.72	6.72	66.40	0.43	41.10	2.92	36.30	71.80
7161	0.25	0.50	0.57	0.50	5.94	6.26	0.10	247.00	0.20	1.11	11.60	632.00	0.23	0.48	6.04	48.60	0.23	34.70	2.24	26.20	103.00
7162	1.74	10.60	1.56	18.20	9.84	7.09	0.46	439.00	0.15	1.10	19.20	738.00	0.27	0.36	5.90	75.50	0.37	50.30	2.27	16.80	142.00
7163	0.25	0.50	0.56	0.50	5.99	3.57	0.10	276.00	0.23	0.86	11.90	707.00	0.20	0.39	5.79	51.00	0.25	27.20	1.69	18.50	112.00
7163	0.25	10.90	1.21	13.80	8.70	6.31	0.42	544.00	0.14	1.35	17.20	786.00	0.35	0.46	4.49	88.80	0.55	46.80	2.87	12.50	138.00
7166	0.25	0.50	0.43	0.50	4.69	2.62	0.10	181.00	0.16	0.68	5.05	623.00	0.35	0.27	2.72	38.10	0.13	21.10	0.87	13.40	53.10
7167	0.25	23.10	1.73	46.70	12.70	16.10	1.20	297.00	0.31	3.75	23.20	1190.00	0.85	1.48	13.40	88.40	0.85	73.80	8.11	28.30	201.00
7168	0.25	0.50	0.66	0.50	2.99	2.22	0.10	223.00	0.15	0.47	12.30	520.00	0.19	0.14	3.90	35.10	0.23	10.50	0.67	2.50	85.10
7169	1.07	0.50	1.12	0.50	7.97	17.10	0.20	300.00	0.24	2.17	15.50	861.00	0.35	1.02	8.99	78.90	0.38	77.50	5.70	12.90	133.00
7170	0.25	15.90	0.52	30.50	11.90	9.12	0.34	371.00	0.13	2.02	11.80	676.00	0.53	0.63	5.45	58.00	0.56	44.20	3.55	19.40	125.00
7171	0.25	32.70	4.06	26.50	10.70	29.50	0.28	76.00	0.31	4.11	25.90	1020.00	0.55	2.16	24.30	112.00	0.39	118.00	13.00	55.30	402.00
7172	0.25	0.50	0.64	0.50	8.27	11.40	0.10	201.00	0.16	2.48	26.00	695.00	0.26	1.25	5.95	36.80	0.05	82.70	5.43	11.60	203.00
7173	0.25	0.50	0.36	0.50	2.02	4.19	0.10	188.00	0.18	0.63	9.34	657.00	0.15	0.27	5.03	32.50	0.36	19.70	1.52	30.00	68.40
7174	0.25	0.50	1.01	0.50	4.19	7.94	0.10	156.00	0.12	1.57	23.30	455.00	0.30	0.71	8.40	30.10	0.16	47.80	3.20	26.10	169.00
7175	0.25	0.50	2.12	42.40	11.50	16.30	0.57	274.00	0.33	4.02	23.80	1530.00	0.29	1.81	14.90	82.50	0.57	98.40	8.02	28.40	294.00
7176	0.25	0.50	2.87	33.80	11.00	23.40	0.10	191.00	0.22	3.37	31.10	981.00	0.41	1.62	15.20	79.30	0.28	103.00	9.30	20.10	338.00
7177	0.25	0.50	4.32	40.70	19.90	40.30	0.37	326.00	0.24	5.82	44.90	788.00	0.73	2.58	21.50	120.00	0.85	147.00	19.50	29.30	324.00
7177	0.25	0.50	2.96	44.40	18.40	28.60	0.31	368.00	0.16	6.10	26.20	592.00	0.61	2.97	15.60	109.00	0.68	122.00	15.40	12.40	283.00
7180	2.23	17.50	1.96	53.40	28.00	22.10	0.50	735.00	0.23	5.62	23.40	1090.00	0.30	1.90	11.20	128.00	1.02	158.00	8.95	28.60	368.00
7181	0.25	0.50	3.32	24.80	20.50	18.00	0.57	1390.00	0.10	4.34	21.30	177.00	0.04	1.71	37.50	60.50	0.64	88.40	9.19	13.60	245.00
7182	1.11	0.50	4.74	32.30	13.50	28.60	0.58	1060.00	0.18	4.33	47.70	514.00	0.16	1.56	43.70	108.00	0.66	147.00	12.30	21.00	407.00
7183	2.37	169.00	12.70	0.50	6.14	2.32	0.83	2310.00	0.11	0.35	2.36	142.00	0.20	0.14	2.06	171.00	1.12	14.10	1.00	9.32	15.70
7184	0.25	177.00	8.20	0.50	1.50	1.18	0.10	1330.00	0.08	0.18	1.18	55.10	0.07	0.08	1.05	101.00	0.30	7.73	0.50	6.88	12.00
7184	0.25	201.00	12.60	0.50	3.90	1.70	0.38	1570.00	0.08	0.24	1.40	79.50	0.11	0.13	0.92	141.00	0.25	11.50	0.76	2.50	13.70
7185	0.25	16.40	14.50	0.50	4.23	10.30	0.85	1520.00	0.11	1.88	3.45	106.00	0.08	0.77	0.51	183.00	0.76	73.00	5.89	5.96	70.10
7186	2.95	21.40	5.36	41.50	12.80	33.50	0.79	666.00	0.12	5.57	35.90	321.00	0.14	2.05	6.74	96.40	0.52	200.00	13.30	20.90	440.00
7187	0.25	22.80	3.36	0.50	7.39	2.58	0.27	1760.00	0.08	0.48	4.45	167.00	0.04	0.23	4.18	111.00	0.28	15.60	1.25	5.19	73.30
7188	0.25	0.50	1.82	0.50	8.60	6.83	0.22	459.00	0.12	1.82	18.20	272.00	0.06	0.58	6.15	107.00	0.28	44.40	2.55	18.00	225.00
7189	2.83	35.80	10.80	0.50	4.60	12.80	0.70	1310.00	0.10	2.54	3.93	185.00	0.10	1.31	1.66	182.00	0.84	103.00	9.72	6.46	62.80
7194	0.25	14.50	0.32	0.50	3.84	2.61	0.24	720.00	0.11	0.68	5.10	554.00	0.29	0.21	2.46	44.00	0.81	16.30	1.27	187.00	30.50
7195	0.25	0.50	0.31	0.50	3.81	0.74	0.10	331.00	0.07	0.14	4.38	145.00	0.08	0.05	1.76	21.80	0.18	4.08	0.23	52.50	33.90
7196	1.53	10.20	3.98	0.50	15.40	12.60	0.10	437.00	0.10	1.76	5.87	136.00	0.04	0.99	8.05	122.00	0.32	102.00	5.89	2.50	106.00
7197	1.87	21.60	5.06	22.80	14.70	27.00	0.10	684.00	0.13	5.62	18.50	222.00	0.04	2.44	36.40	180.00	0.36	192.00	19.00	2.50	279.00
7198	0.25	11.70	0.77	0.50	8.90	8.05	0.10	190.00	0.09	1.28	11.10	334.00	0.40	0.53	4.97	62.80	0.37	38.80	3.47	2.50	82.10
7199	0.25	0.50	1.36	0.50	6.09	12.80	0.10	440.00	0.10	2.73	6.31	173.00	0.01	1.14	6.74	72.00	0.05	82.00	4.77	2.50	97.80
7200	0.25	20.60	1.46	14.40	12.80	14.20	0.25	1370.00	0.12	2.62	9.33	248.00	0.14	1.10	3.30	62.00	0.87	119.00	7.37	7.32	134.00

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Ru_ENZ_ppb	S_ENZ_ppm	Sb_ENZ_ppb	Sc_ENZ_ppb	Se_ENZ_ppb	Sm_ENZ_ppb	Sn_ENZ_ppb	Sr_ENZ_ppb	Ta_ENZ_ppb	Tb_ENZ_ppb	Th_ENZ_ppb	Ti_ENZ_ppb	Tl_ENZ_ppb	Tm_ENZ_ppb	U_ENZ_ppb	V_ENZ_ppb	W_ENZ_ppb	Y_ENZ_ppb	Yb_ENZ_ppb	Zn_ENZ_ppb	Zr_ENZ_ppb
7201	0.25	12.90	2.65	41.10	13.00	19.40	0.10	1130.00	0.18	3.19	30.80	519.00	0.12	1.39	20.00	94.80	0.77	151.00	9.51	19.30	300.00
7202	0.25	12.10	3.07	23.60	13.00	17.60	0.10	798.00	0.11	4.11	8.59	171.00	0.01	1.78	11.70	93.30	0.05	116.00	7.95	2.50	211.00
7203	0.25	10.80	1.54	0.50	9.43	5.81	0.10	611.00	0.08	1.33	15.70	186.00	0.01	0.54	17.10	51.90	0.26	37.50	2.26	2.50	208.00
7204	0.25	22.00	2.60	27.10	19.10	12.90	0.10	940.00	0.11	2.48	34.70	222.00	0.05	0.75	20.40	91.20	0.88	68.30	5.45	2.50	287.00
7204	0.25	17.20	2.06	20.00	17.30	8.33	0.22	1080.00	0.11	2.16	22.10	311.00	0.05	0.83	19.20	82.00	0.48	47.20	4.31	7.54	232.00
7207	0.25	0.50	2.01	22.90	8.49	23.00	0.10	509.00	0.22	3.27	28.40	550.00	0.11	2.03	18.00	75.10	0.39	125.00	12.30	14.80	372.00
7208	0.25	0.50	1.05	16.00	6.88	13.80	0.10	409.00	0.15	3.21	33.20	373.00	0.11	1.32	24.80	50.20	0.29	75.80	6.00	13.90	319.00
7209	0.25	15.30	3.75	33.50	18.70	22.50	0.35	571.00	0.20	5.09	23.60	696.00	0.25	2.35	13.60	110.00	0.61	127.00	14.70	15.00	250.00
7210	0.25	10.60	0.53	0.50	5.97	3.07	0.10	372.00	0.07	0.64	2.27	394.00	0.31	0.26	2.61	77.70	0.46	17.30	1.16	5.50	30.10
7211	0.25	0.50	0.66	0.50	3.89	3.61	0.10	274.00	0.07	0.66	4.46	195.00	0.17	0.25	4.88	38.50	0.05	18.50	1.20	2.50	57.40
7212	0.25	15.70	2.12	32.60	10.40	23.70	0.10	687.00	0.15	3.23	27.90	519.00	0.33	1.15	22.40	85.80	0.63	148.00	7.44	10.90	306.00
7213	0.65	0.50	0.87	0.50	3.51	2.21	0.23	290.00	0.27	0.92	9.25	492.00	0.39	0.27	2.63	30.90	0.29	14.50	1.02	15.00	76.10
7214	0.25	0.50	0.82	0.50	4.75	2.04	0.10	195.00	0.25	0.56	10.20	823.00	0.22	0.22	3.25	51.10	0.53	14.40	0.76	17.20	89.90
7215	0.25	0.50	2.26	12.70	7.64	6.18	0.51	418.00	0.41	2.07	11.90	1530.00	0.23	0.83	6.57	74.40	1.10	41.80	3.23	12.10	122.00
8001	1.24	39.90	15.90	15.60	6.83	3.46	0.10	3040.00	0.17	0.37	7.65	323.00	0.17	0.16	4.51	201.00	0.83	20.70	1.14	34.90	51.10
8002	0.25	0.50	5.19	0.50	2.46	7.65	0.10	221.00	0.26	1.20	6.19	842.00	0.23	0.69	2.77	149.00	0.16	44.50	4.77	55.80	88.20
8003	0.86	24.80	15.30	16.50	6.64	4.60	0.43	1470.00	0.13	0.58	4.27	265.00	0.21	0.23	1.15	192.00	0.85	29.90	1.60	20.00	34.80
8004	2.04	37.30	17.00	17.00	10.80	2.82	0.48	1750.00	0.17	0.51	3.89	248.00	0.24	0.19	0.91	180.00	1.27	18.20	1.57	21.30	28.60
8004	0.59	22.10	14.80	16.80	7.55	1.88	0.45	1610.00	0.15	0.42	2.59	243.00	0.16	0.19	0.73	149.00	0.98	13.20	1.02	25.90	29.50
8005	2.19	0.50	7.11	0.50	1.43	3.77	0.10	619.00	0.17	0.67	2.70	83.90	0.06	0.25	1.17	79.80	0.13	20.20	1.63	12.30	19.00
8006	0.25	0.50	4.41	0.50	1.25	3.70	0.10	187.00	0.15	0.66	2.58	121.00	0.07	0.40	1.09	78.70	0.05	21.00	2.21	2.50	28.60
8007	0.25	0.50	4.46	0.50	0.50	1.10	0.10	345.00	0.17	0.27	1.30	78.30	0.11	0.12	0.41	53.70	0.22	8.29	0.54	7.41	11.00
8008	0.25	0.50	6.94	0.50	3.38	1.62	0.45	855.00	0.30	0.44	2.51	443.00	0.20	0.17	0.71	86.50	0.81	22.00	0.80	25.90	19.50
8009	0.25	0.50	7.14	0.50	2.14	1.63	0.10	831.00	0.25	0.34	3.54	198.00	0.15	0.12	1.15	77.90	0.52	8.62	0.64	36.90	44.90
8010	0.25	0.50	4.32	0.50	1.72	11.20	0.10	212.00	0.35	2.39	11.30	1060.00	0.21	1.51	4.50	94.30	0.44	70.10	7.19	64.50	181.00
8011	0.25	0.50	5.36	0.50	1.58	2.02	0.10	984.00	0.21	0.39	3.32	208.00	0.11	0.17	1.41	68.80	0.42	13.60	0.77	15.80	22.50
8013	0.25	0.50	7.39	0.50	4.15	5.09	0.10	685.00	0.14	1.26	3.10	141.00	0.06	0.64	1.00	91.50	0.05	40.10	3.29	6.71	31.80
8014	0.25	0.50	6.56	0.50	2.19	1.72	0.10	1240.00	0.20	0.29	3.14	193.00	0.11	0.11	2.34	69.30	0.48	9.83	0.70	22.00	21.80
8015	1.16	12.20	9.18	0.50	5.25	9.10	0.10	298.00	0.13	1.55	4.42	169.00	0.31	0.72	1.62	102.00	1.18	66.90	5.86	5.16	56.80
8016	0.25	0.50	5.69	0.50	4.71	6.41	0.10	246.00	0.14	1.41	3.38	240.00	0.23	0.85	1.65	79.60	0.65	44.10	4.22	42.00	49.80
8016	1.36	14.20	8.13	0.50	5.98	8.47	0.32	342.00	0.16	1.96	4.04	292.00	0.33	1.00	1.55	108.00	0.77	74.20	6.16	19.90	65.20
8017	0.25	0.50	4.37	0.50	1.77	1.32	0.10	326.00	0.12	0.24	1.49	71.30	0.05	0.12	0.43	63.60	0.60	10.20	0.54	9.91	12.30
8018	0.25	0.50	7.50	0.50	1.75	1.35	0.10	1300.00	0.19	0.29	2.52	240.00	0.13	0.12	1.24	71.60	0.63	8.87	0.56	34.90	20.00
8019	0.25	0.50	6.29	0.50	2.19	1.00	0.10	1040.00	0.17	0.21	1.20	132.00	0.06	0.09	0.64	69.50	0.72	6.17	0.57	8.45	12.60
8020	0.25	20.20	8.87	0.50	5.29	1.83	0.10	1900.00	0.18	0.30	2.69	320.00	0.18	0.11	1.36	82.50	1.30	9.87	0.77	14.50	12.30
8021	0.25	20.80	5.64	14.00	11.20	6.61	0.22	1320.00	0.22	1.65	2.92	323.00	0.11	0.81	1.53	152.00	1.38	78.80	4.80	35.10	48.10
8022	0.25	0.50	3.21	0.50	5.27	2.27	0.10	424.00	0.13	0.55	1.14	85.60	0.02	0.30	0.76	67.10	0.56	22.50	1.21	2.50	14.10

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Ru_ENZ_ppb	S_ENZ_ppm	Sb_ENZ_ppb	Sc_ENZ_ppb	Se_ENZ_ppb	Sm_ENZ_ppb	Sn_ENZ_ppb	Sr_ENZ_ppb	Ta_ENZ_ppb	Tb_ENZ_ppb	Th_ENZ_ppb	Ti_ENZ_ppb	Tl_ENZ_ppb	Tm_ENZ_ppb	U_ENZ_ppb	V_ENZ_ppb	W_ENZ_ppb	Y_ENZ_ppb	Yb_ENZ_ppb	Zn_ENZ_ppb	Zr_ENZ_ppb
8023	0.25	12.70	6.16	26.70	8.00	6.49	0.46	1400.00	0.43	1.46	6.52	1490.00	0.36	0.71	2.69	173.00	1.53	44.00	3.53	59.10	83.30
8025	0.25	0.50	3.68	0.50	4.24	2.70	0.10	734.00	0.22	0.60	2.90	345.00	0.14	0.32	1.00	82.20	0.89	17.60	1.47	31.70	34.70
8026	0.25	0.50	2.34	0.50	1.24	1.38	0.10	400.00	0.16	0.32	1.52	152.00	0.09	0.18	0.60	52.20	0.74	9.59	0.88	22.50	24.80
8027	0.25	0.50	4.73	0.50	1.65	2.30	0.10	222.00	0.14	0.40	1.76	84.70	0.02	0.24	0.38	101.00	0.47	16.60	1.18	2.50	33.60
8028	1.13	0.50	6.31	0.50	2.49	4.02	0.10	255.00	0.12	0.50	2.97	86.80	0.05	0.25	0.50	125.00	0.65	24.20	1.98	2.50	40.10
8028	0.61	11.10	5.11	0.50	3.22	3.03	0.10	363.00	0.14	0.64	1.52	128.00	0.04	0.35	0.33	129.00	0.87	21.50	1.94	14.80	29.10
8029	0.25	10.10	5.59	0.50	3.25	2.54	0.10	503.00	0.12	0.35	2.44	139.00	0.08	0.16	0.86	88.60	0.79	17.10	0.97	2.50	30.30
8030	0.25	0.50	3.10	0.50	0.50	1.13	0.10	696.00	0.11	0.21	1.26	48.30	0.05	0.09	0.52	86.90	0.46	6.90	0.58	26.30	11.30
8031	0.25	27.70	15.50	0.50	8.94	0.98	0.10	1940.00	0.22	0.27	1.80	257.00	0.09	0.12	1.61	133.00	1.26	8.69	0.67	8.96	31.80
8032	0.66	41.80	14.00	0.50	7.11	1.11	0.10	2070.00	0.20	0.31	2.01	226.00	0.09	0.14	1.42	140.00	1.82	9.93	0.80	18.30	40.30
8033	0.25	26.50	13.20	0.50	6.65	1.04	0.10	2370.00	0.19	0.27	1.90	98.00	0.11	0.10	1.22	142.00	1.62	8.44	0.75	25.80	21.30
8034	0.25	18.50	3.41	0.50	3.83	2.46	0.10	987.00	0.15	0.33	2.28	173.00	0.35	0.16	0.57	72.70	1.95	15.20	0.95	9.08	18.10
8035	0.25	25.00	9.15	14.10	7.60	1.87	0.10	1570.00	0.18	0.35	2.24	321.00	0.18	0.14	1.11	164.00	1.24	14.10	0.80	16.30	24.60
8037	0.25	13.10	6.01	0.50	4.58	2.47	0.10	887.00	0.16	0.38	2.55	188.00	0.16	0.17	0.74	137.00	1.16	18.10	1.45	8.64	28.60
8038	0.87	17.50	8.63	0.50	4.48	2.60	0.10	1360.00	0.23	0.49	2.61	402.00	0.30	0.23	0.95	134.00	1.41	14.30	1.40	16.00	28.70
8039	1.43	0.50	2.25	0.50	6.15	2.46	0.10	416.00	0.23	0.68	1.24	70.10	0.10	0.23	0.40	32.20	0.91	15.60	1.27	9.96	12.10
8040	0.25	0.50	1.83	0.50	5.40	1.47	0.10	504.00	0.23	0.37	1.32	154.00	0.12	0.16	0.71	32.80	0.88	8.90	0.79	11.60	13.50
8040	0.25	0.50	2.59	0.50	6.82	1.35	0.41	765.00	0.24	0.50	1.37	214.00	0.14	0.20	0.63	43.50	1.14	13.20	0.97	19.10	14.30
8041	0.25	11.80	2.87	0.50	7.87	5.11	0.60	762.00	0.23	1.68	1.83	114.00	0.13	0.61	0.53	107.00	0.86	36.80	3.72	12.10	31.00
8042	0.25	116.00	1.59	0.50	4.57	1.04	0.10	2810.00	0.24	0.20	1.34	101.00	0.08	0.10	0.90	23.40	0.63	5.33	0.51	2.50	8.98
8043	0.25	14.50	4.02	0.50	10.10	2.30	0.42	815.00	0.22	0.46	1.87	167.00	0.23	0.15	0.48	51.60	1.25	14.70	1.05	9.65	10.00
8044	0.25	0.50	1.36	0.50	3.92	0.98	0.10	358.00	0.16	0.23	0.52	89.60	0.14	0.09	0.25	19.40	0.76	5.80	0.49	2.50	5.30
8045	0.25	44.70	4.51	0.50	6.41	1.38	0.10	2220.00	0.19	0.22	1.53	229.00	0.18	0.07	1.22	54.10	0.56	6.94	0.49	18.50	11.70
8046	0.25	128.00	6.71	0.50	7.34	1.12	0.10	2300.00	0.19	0.18	1.62	106.00	0.09	0.07	1.18	50.50	0.51	7.33	0.51	2.50	8.55
8047	0.25	31.70	4.72	0.50	6.20	1.65	0.28	2780.00	0.25	0.42	1.66	249.00	0.21	0.16	1.36	61.50	0.92	9.32	0.72	7.76	8.45
8049	0.25	14.60	2.57	0.50	3.37	0.92	0.10	1010.00	0.51	0.21	0.68	69.30	0.12	0.07	0.36	35.60	0.16	5.78	0.37	2.50	4.68
8050	0.51	19.70	5.02	0.50	6.36	5.52	0.10	801.00	0.16	0.70	2.81	237.00	0.20	0.27	0.88	104.00	0.56	30.80	2.05	10.80	14.60
8051	0.25	17.70	4.29	0.50	8.65	3.20	0.10	828.00	0.19	0.95	1.53	256.00	0.13	0.43	0.55	76.60	0.51	26.30	2.03	10.50	11.70
8052	0.25	0.50	2.83	0.50	6.16	2.16	0.10	595.00	0.13	0.34	1.66	80.00	0.14	0.14	0.69	44.50	0.28	11.80	1.03	2.50	8.56
8052	0.25	23.50	4.15	0.50	9.59	3.04	0.34	1370.00	0.17	0.75	1.54	223.00	0.24	0.25	0.65	79.20	0.94	19.20	1.71	10.60	9.10
8053	0.25	34.90	4.18	12.20	7.55	1.33	0.33	3030.00	0.18	0.38	0.88	155.00	0.19	0.16	0.45	89.00	1.02	9.24	0.82	6.93	7.28
8054	0.25	44.70	7.02	0.50	7.23	1.48	0.10	3710.00	0.21	0.27	1.39	186.00	0.24	0.10	0.81	95.30	1.24	8.32	0.80	2.50	8.76
8055	0.25	1130.00	4.76	0.50	11.30	0.78	0.10	11100.00	0.18	0.14	1.03	57.30	0.19	0.06	8.29	29.90	0.53	6.41	0.43	2.50	8.92
8056	0.25	2100.00	4.66	27.40	54.40	1.35	0.22	18200.00	0.23	0.34	0.86	125.00	0.83	0.13	3.57	45.30	1.12	10.40	0.87	16.50	5.34
8057	0.54	2040.00	7.95	27.30	64.10	2.95	0.20	17700.00	0.22	0.70	1.46	159.00	0.78	0.31	3.12	51.50	1.46	19.80	1.99	12.70	7.50
8058	0.25	1520.00	4.04	0.50	9.32	0.86	0.10	8150.00	0.17	0.19	0.92	75.20	0.25	0.07	3.25	28.70	0.31	5.57	0.52	8.48	5.54
8059	0.25	7190.00	7.27	51.70	34.50	1.68	0.10	40800.00	0.20	0.29	1.07	107.00	0.46	0.10	1.17	183.00	0.41	12.70	0.82	48.60	10.10

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Ru_ENZ_ppb	S_ENZ_ppm	Sb_ENZ_ppb	Sc_ENZ_ppb	Se_ENZ_ppb	Sm_ENZ_ppb	Sn_ENZ_ppb	Sr_ENZ_ppb	Ta_ENZ_ppb	Tb_ENZ_ppb	Th_ENZ_ppb	Ti_ENZ_ppb	Tl_ENZ_ppb	Tm_ENZ_ppb	U_ENZ_ppb	V_ENZ_ppb	W_ENZ_ppb	Y_ENZ_ppb	Yb_ENZ_ppb	Zn_ENZ_ppb	Zr_ENZ_ppb
8061	0.25	26.00	6.93	10.30	11.00	4.14	0.10	2810.00	0.22	0.54	2.84	188.00	0.16	0.26	2.67	88.90	0.84	27.20	2.11	9.66	24.70
8062	0.25	30.40	6.62	0.50	7.91	5.82	0.10	1510.00	0.16	1.00	2.11	83.80	0.15	0.37	1.41	130.00	0.91	35.90	3.52	2.50	16.90
8063	0.25	16.10	5.97	0.50	4.30	1.64	0.10	2430.00	0.18	0.38	1.46	141.00	0.07	0.17	2.54	51.30	0.37	12.50	0.95	2.50	21.20
8064	0.25	15.60	8.36	0.50	5.68	2.92	0.10	1550.00	0.13	0.49	1.73	40.30	0.03	0.23	1.95	65.50	0.47	20.00	1.49	2.50	20.20
8064	0.25	24.70	7.00	0.50	5.21	2.06	0.10	1850.00	0.14	0.54	0.92	54.20	0.04	0.26	1.22	65.00	0.37	18.80	1.50	2.50	17.40
8065	0.25	0.50	3.98	0.50	1.76	1.15	0.10	1050.00	0.11	0.25	0.83	36.80	0.07	0.11	0.76	42.50	0.45	7.34	0.68	2.50	6.45
8066	0.25	6450.00	7.49	46.50	46.70	1.51	0.10	36300.00	0.20	0.41	1.08	96.50	0.38	0.16	1.82	72.10	0.77	11.50	0.85	43.80	7.99
8067	0.25	178.00	9.59	12.60	20.00	3.63	0.10	4420.00	0.20	0.50	2.36	184.00	0.25	0.20	3.63	178.00	1.31	21.00	1.77	2.50	18.30
8068	0.25	77.90	6.23	13.00	21.90	1.63	0.24	3790.00	0.22	0.43	1.45	219.00	0.19	0.19	2.44	177.00	1.34	11.30	1.11	2.50	12.00
8142	0.25	0.50	6.53	34.30	7.02	18.20	0.63	124.00	0.53	3.67	27.50	1860.00	0.46	2.43	21.10	171.00	1.11	127.00	12.70	121.00	314.00
8143	2.24	0.50	6.66	25.50	8.29	12.90	0.61	476.00	0.39	2.36	14.90	1510.00	0.54	1.52	5.55	221.00	1.22	118.00	10.30	74.70	128.00
8144	0.25	274.00	7.43	0.50	23.20	0.54	0.26	4040.00	0.16	0.25	1.65	69.10	0.26	0.11	5.85	122.00	0.71	5.87	0.37	6.91	7.56
8145	0.25	0.50	2.21	0.50	0.50	0.84	0.10	1220.00	0.12	0.21	0.94	55.40	0.03	0.12	0.53	63.40	0.22	7.09	0.52	2.50	7.12
8146	0.25	14.60	2.28	20.30	7.68	14.70	0.57	301.00	0.30	3.84	6.95	1120.00	0.68	2.07	3.39	130.00	1.54	77.80	12.00	20.90	115.00
8147	0.25	0.50	1.30	13.00	5.20	10.30	0.32	176.00	0.38	2.53	5.48	1620.00	0.46	1.47	7.93	85.50	1.01	51.50	6.88	32.60	90.70
8148	0.25	0.50	1.06	0.50	3.13	9.80	0.10	175.00	0.12	1.97	5.33	426.00	0.66	1.27	6.83	50.70	0.50	48.80	5.80	2.50	98.70
8149	0.25	0.50	1.69	32.20	6.92	17.10	0.38	201.00	0.29	2.21	10.30	1430.00	0.70	1.29	9.03	107.00	0.67	84.90	7.96	32.80	178.00
8149	0.25	0.50	1.97	30.10	6.01	17.90	0.32	178.00	0.40	2.72	12.80	1770.00	0.74	1.47	9.62	109.00	0.86	83.00	8.85	35.80	164.00
8152	1.24	16.30	4.47	45.80	7.72	11.80	0.86	301.00	0.57	1.83	11.70	2550.00	0.47	1.02	4.85	196.00	1.65	65.40	8.91	54.70	139.00
8153	0.25	14.30	5.35	0.50	3.01	2.94	0.25	1170.00	0.14	0.91	1.88	151.00	0.13	0.46	1.11	108.00	0.64	27.90	1.94	6.69	11.30
8154	0.25	0.50	2.35	0.50	5.28	3.45	0.10	246.00	0.38	0.63	6.56	1360.00	0.23	0.48	3.67	123.00	0.58	24.70	2.07	48.00	72.50
8155	0.25	0.50	4.55	0.50	2.86	4.06	0.10	480.00	0.11	1.16	2.46	182.00	0.02	0.74	2.35	155.00	1.42	42.00	3.14	14.20	45.40
8156	0.25	0.50	1.98	0.50	3.01	6.46	0.10	166.00	0.27	1.01	6.29	833.00	0.60	0.63	6.46	88.40	1.01	25.10	3.58	27.30	56.80
8157	1.36	0.50	5.39	42.10	12.90	23.80	0.92	381.00	0.69	3.67	22.80	3160.00	1.01	1.78	18.50	228.00	3.29	106.00	13.60	53.30	196.00
8158	0.25	0.50	4.31	33.70	9.57	21.30	0.28	234.00	0.46	2.65	26.40	1920.00	0.38	1.57	25.10	128.00	1.69	91.20	10.30	27.80	222.00
8159	0.25	0.50	6.52	26.80	15.30	26.50	0.49	367.00	0.54	3.72	26.40	2140.00	0.70	1.82	24.40	181.00	2.15	115.00	15.50	34.10	211.00
8160	0.25	0.50	3.85	22.60	9.95	17.90	0.59	329.00	0.36	5.14	6.56	1480.00	1.15	2.71	9.47	138.00	1.99	103.00	13.70	80.00	94.80
8161	0.25	0.50	2.68	0.50	4.88	9.13	0.10	222.00	0.13	1.65	4.16	299.00	0.17	1.12	3.65	107.00	0.80	54.40	6.67	27.60	96.20
8162	0.25	0.50	7.00	0.50	4.24	5.94	0.10	309.00	0.08	0.94	3.84	105.00	0.21	0.62	2.91	133.00	0.99	48.20	3.81	19.80	24.50
8163	0.25	13.20	9.42	12.60	4.70	5.21	0.10	395.00	0.10	1.04	3.64	155.00	0.24	0.58	2.17	186.00	1.21	54.80	4.18	16.00	25.70
8163	0.25	12.70	9.45	13.50	7.81	4.81	0.24	468.00	0.12	1.18	3.23	176.00	0.27	0.68	1.92	187.00	1.20	56.90	4.27	18.50	24.80
8166	0.25	0.50	4.50	39.10	11.50	22.20	0.64	346.00	0.41	3.44	15.70	1700.00	1.02	1.90	15.90	205.00	1.43	121.00	13.50	107.00	200.00
8167	0.25	0.50	5.25	44.40	15.90	24.10	0.79	414.00	0.53	5.92	18.90	2280.00	1.04	3.25	13.00	184.00	2.05	107.00	18.60	43.00	298.00
8168	0.25	0.50	3.28	0.50	5.39	14.60	0.29	393.00	0.15	3.72	6.53	534.00	0.84	2.12	6.96	131.00	1.45	79.80	13.20	7.71	83.90
8169	0.25	0.50	3.17	0.50	2.10	4.79	0.10	307.00	0.13	1.26	2.93	285.00	0.13	0.95	3.51	94.70	0.62	41.00	4.48	35.10	60.10
8170	0.25	0.50	2.74	0.50	3.63	3.64	0.10	305.00	0.10	0.86	2.67	259.00	0.17	0.71	2.07	74.30	0.48	39.00	3.21	31.00	49.60
8171	0.25	394.00	6.67	14.50	7.83	12.10	1.13	209.00	0.26	3.47	5.64	859.00	0.62	3.14	6.12	195.00	0.66	135.00	12.80	138.00	142.00

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Ru_ENZ_ppb	S_ENZ_ppm	Sb_ENZ_ppb	Sc_ENZ_ppb	Se_ENZ_ppb	Sm_ENZ_ppb	Sn_ENZ_ppb	Sr_ENZ_ppb	Ta_ENZ_ppb	Tb_ENZ_ppb	Th_ENZ_ppb	Ti_ENZ_ppb	Tl_ENZ_ppb	Tm_ENZ_ppb	U_ENZ_ppb	V_ENZ_ppb	W_ENZ_ppb	Y_ENZ_ppb	Yb_ENZ_ppb	Zn_ENZ_ppb	Zr_ENZ_ppb
8172	0.25	0.50	7.36	34.50	7.14	28.80	0.27	313.00	0.38	4.43	41.00	960.00	0.85	2.23	8.47	114.00	0.96	139.00	15.60	18.30	361.00
8173	0.25	0.50	6.28	53.50	11.00	27.90	1.21	456.00	0.80	4.69	37.90	2550.00	1.49	2.97	22.60	237.00	1.81	158.00	17.40	129.00	375.00
8174	0.25	0.50	13.50	30.50	19.30	24.30	0.71	536.00	0.35	5.62	26.60	1380.00	1.08	3.58	37.10	212.00	2.34	163.00	20.30	30.00	511.00
8175	0.25	0.50	8.11	20.30	14.30	22.60	0.93	391.00	0.43	6.77	16.00	1980.00	0.45	3.93	12.40	232.00	1.86	173.00	20.90	85.10	248.00
8176	0.25	0.50	4.90	28.40	9.62	22.60	0.31	211.00	0.39	4.08	21.90	1360.00	0.39	2.63	18.90	153.00	0.80	135.00	14.10	53.00	444.00
8177	0.25	0.50	4.96	28.80	13.50	21.70	0.41	296.00	0.27	5.31	17.60	1380.00	0.45	3.41	13.00	155.00	1.19	126.00	17.10	45.90	281.00
8177	0.25	0.50	6.51	33.60	16.00	27.70	0.60	351.00	0.34	6.81	22.70	1350.00	0.67	4.15	13.50	178.00	1.78	157.00	23.20	40.30	286.00
8180	0.25	0.50	4.62	0.50	4.36	11.20	0.22	293.00	0.20	2.64	6.40	829.00	0.16	1.88	4.15	142.00	0.67	110.00	9.11	67.50	167.00
8181	0.25	28.70	11.20	0.50	2.32	2.13	0.10	1950.00	0.19	0.29	3.43	188.00	0.11	0.12	4.22	67.90	0.65	11.40	0.75	8.03	31.20
8182	0.25	0.50	9.03	0.50	3.26	1.30	0.10	2610.00	0.19	0.27	2.17	318.00	0.08	0.14	2.29	78.40	0.55	9.05	0.55	26.20	18.00
8183	0.50	327.00	7.27	0.50	3.00	3.59	0.10	1450.00	0.13	0.19	1.51	96.40	0.09	0.09	1.35	107.00	0.24	7.00	0.48	7.60	10.80
8184	0.25	389.00	5.44	0.50	0.50	0.72	0.10	1730.00	0.14	0.18	0.75	89.30	0.10	0.08	0.73	98.90	0.17	4.86	0.36	7.10	6.79
8184	1.05	489.00	9.80	0.50	6.71	1.24	0.22	2820.00	0.18	0.23	0.98	568.00	0.17	0.10	0.74	172.00	0.73	7.68	0.68	8.06	7.54
8185	1.37	34.20	13.60	14.30	5.71	2.85	0.54	3920.00	0.26	0.59	4.22	636.00	0.19	0.22	1.39	166.00	1.43	20.40	1.32	36.20	29.80
8186	0.25	0.50	8.60	0.50	2.10	0.92	0.10	1770.00	0.19	0.19	1.59	158.00	0.08	0.09	1.80	73.20	0.44	6.71	0.44	11.90	19.80
8187	0.86	23.80	11.10	0.50	5.35	4.33	0.10	1880.00	0.19	1.10	3.82	142.00	0.03	0.57	2.43	157.00	0.50	36.30	2.75	78.70	49.70
8188	0.25	0.50	6.74	0.50	3.17	1.04	0.10	1130.00	0.19	0.19	1.89	91.40	0.11	0.10	1.17	54.30	0.92	6.99	0.48	19.10	18.80
8189	0.25	0.50	5.61	0.50	0.50	1.39	0.10	1360.00	0.16	0.20	1.74	94.90	0.08	0.11	1.84	68.20	0.85	7.97	0.67	11.10	16.20
8194	0.25	0.50	2.30	0.50	3.61	7.42	0.98	553.00	0.13	1.33	7.38	359.00	0.15	0.99	9.42	91.60	1.15	57.20	6.09	69.30	116.00
8195	0.25	15.60	6.94	0.50	14.10	18.10	0.10	345.00	0.22	5.13	7.20	648.00	1.03	4.00	31.80	177.00	0.58	129.00	15.80	95.10	128.00
8196	0.25	0.50	4.02	0.50	1.03	4.39	0.10	433.00	0.09	1.46	2.11	134.00	0.07	0.89	4.15	124.00	0.48	55.10	2.90	16.90	15.20
8197	0.25	21.40	20.20	23.30	6.33	8.22	0.44	934.00	0.33	1.40	12.20	1040.00	0.28	0.83	10.60	409.00	1.66	79.40	4.56	36.40	121.00
8198	3.32	12.90	6.15	44.40	11.00	20.70	1.10	248.00	0.50	5.35	18.00	1690.00	1.19	2.40	12.40	199.00	1.70	97.00	16.90	42.20	218.00
8199	0.25	11.20	2.67	0.50	5.55	11.40	0.48	642.00	0.21	3.02	5.35	166.00	0.23	1.76	4.80	62.70	2.02	94.40	11.60	58.80	61.50
8200	0.25	19.50	3.45	0.50	1.92	3.42	0.29	618.00	0.19	0.69	3.22	252.00	0.41	0.31	1.20	88.00	0.74	27.50	1.93	7.27	16.10
8201	0.25	20.40	7.76	0.50	1.24	5.95	0.27	800.00	0.17	1.46	3.88	158.00	0.16	0.77	1.63	136.00	1.41	48.60	5.08	2.50	30.00
8202	0.25	23.00	5.12	0.50	5.09	1.94	0.32	1040.00	0.15	0.48	2.17	139.00	0.27	0.25	0.89	135.00	1.03	18.30	1.44	2.50	13.80
8203	0.25	0.50	3.91	0.50	3.27	5.98	0.10	331.00	0.14	1.81	4.86	86.80	0.02	1.13	4.93	63.90	0.39	64.20	5.14	2.50	102.00
8204	0.25	0.50	4.04	0.50	3.31	4.84	0.10	341.00	0.13	1.54	3.83	123.00	0.02	1.02	4.41	73.80	0.37	49.30	4.59	2.50	70.80
8204	0.25	0.50	5.42	36.50	5.62	7.70	0.60	487.00	0.38	2.29	7.35	1450.00	0.27	1.60	5.55	146.00	0.86	77.40	6.53	48.20	122.00
8207	0.25	15.10	6.82	0.50	4.57	7.04	0.36	995.00	0.15	2.40	5.63	274.00	0.08	1.37	1.89	122.00	0.93	58.00	7.45	6.33	97.20
8208	0.25	0.50	4.86	0.50	3.38	23.40	0.95	340.00	0.49	2.81	18.80	1580.00	0.30	1.96	10.90	162.00	0.45	127.00	12.80	77.50	301.00
8209	0.25	0.50	4.00	24.80	6.47	12.70	0.73	350.00	0.47	3.76	12.10	1440.00	0.46	2.17	15.10	140.00	1.33	81.10	10.70	37.80	165.00
8210	2.58	0.50	3.72	0.50	7.02	10.30	0.22	200.00	0.22	1.67	8.79	769.00	0.65	0.85	6.97	150.00	0.86	50.50	6.46	16.50	103.00
8211	0.25	0.50	5.56	15.30	5.38	11.10	0.39	352.00	0.22	1.71	7.97	922.00	0.40	0.91	4.11	209.00	0.94	64.90	6.42	63.40	71.90
8212	0.25	0.50	4.68	0.50	3.13	6.24	0.10	209.00	0.28	1.02	6.82	758.00	0.29	0.68	3.82	133.00	0.65	44.80	4.20	59.40	70.70
8213	0.25	0.50	4.57	21.00	6.24	20.20	0.41	308.00	0.33	2.95	17.20	1170.00	0.75	1.88	8.90	144.00	0.98	93.20	12.40	36.70	236.00

Appendix 5 - Enzyme Leach Analytical Results

Field Number	Ru_ENZ_ppb	S_ENZ_ppm	Sb_ENZ_ppb	Sc_ENZ_ppb	Se_ENZ_ppb	Sm_ENZ_ppb	Sn_ENZ_ppb	Sr_ENZ_ppb	Ta_ENZ_ppb	Tb_ENZ_ppb	Th_ENZ_ppb	Ti_ENZ_ppb	Tl_ENZ_ppb	Tm_ENZ_ppb	U_ENZ_ppb	V_ENZ_ppb	W_ENZ_ppb	Y_ENZ_ppb	Yb_ENZ_ppb	Zn_ENZ_ppb	Zr_ENZ_ppb
8214	0.25	0.50	1.78	0.50	3.01	4.89	0.10	191.00	0.27	1.47	3.90	843.00	0.33	1.02	2.58	81.80	0.39	39.90	3.67	57.30	65.70
8215	0.25	0.50	3.27	15.50	4.08	11.70	0.10	246.00	0.28	2.01	7.92	1030.00	0.54	1.16	4.34	134.00	0.97	85.00	8.04	36.30	104.00
NAT98-282	2.59	28.10	15.20	32.80	5.06	3.77	1.18	2180.00	0.19	0.57	6.28	618.00	0.44	0.19	2.24	248.00	0.78	19.10	1.88	33.50	43.70
NAT98-282	1.25	24.10	17.50	14.90	2.40	2.23	0.32	2340.00	0.12	0.23	4.21	296.00	0.26	0.10	2.19	204.00	0.66	12.70	0.61	39.70	22.30
Till2	0.25	32.70	2.54	0.50	7.76	6.65	0.80	682.00	0.16	1.29	5.15	950.00	1.22	0.72	8.32	84.90	1.96	42.80	3.57	54.90	31.50
NAT98-282	0.25	24.50	7.82	27.60	7.74	3.26	0.71	1970.00	0.17	0.50	5.73	516.00	0.36	0.21	2.60	133.00	0.83	20.50	1.27	27.90	27.80
NAT98-282	0.25	23.90	11.60	21.60	5.55	3.01	0.67	2200.00	0.17	0.57	4.28	351.00	0.35	0.21	2.41	154.00	0.98	21.00	1.33	15.40	24.50
NAT98-282	0.25	14.90	7.21	0.50	4.72	1.36	0.62	1860.00	0.22	0.45	2.70	434.00	0.29	0.23	1.86	125.00	1.06	11.70	0.91	14.80	18.30
Till2	0.25	17.30	1.79	0.50	6.94	8.63	0.10	760.00	0.15	1.22	8.00	651.00	1.16	0.54	10.80	60.90	2.17	50.40	3.38	86.50	33.00
NAT98-282	0.25	0.50	12.00	0.50	2.57	1.25	0.10	1760.00	0.15	0.20	2.81	223.00	0.16	0.09	2.41	161.00	0.40	8.12	0.46	9.92	19.70
NAT98-282	0.25	0.50	3.73	0.50	4.24	1.36	0.10	1360.00	0.18	0.22	2.22	169.00	0.30	0.10	1.90	53.60	0.69	6.58	0.64	10.60	12.20
Till2	1.01	30.90	3.45	10.50	5.84	7.21	0.63	1290.00	0.34	1.64	7.31	1750.00	1.64	0.76	8.84	120.00	4.37	42.90	4.14	90.90	50.20
Till3	0.25	0.50	19.70	0.50	7.00	4.45	0.62	346.00	0.14	0.49	5.71	472.00	0.15	0.21	3.18	108.00	2.02	18.30	1.74	35.80	27.30
Till2	0.25	27.40	3.12	0.50	6.47	6.19	0.62	1270.00	0.28	1.39	8.35	1180.00	1.75	0.69	8.11	104.00	4.59	41.10	4.06	77.40	38.90
Till3	0.85	21.20	18.90	0.50	9.00	5.29	0.27	312.00	0.10	0.48	5.26	351.00	0.12	0.22	56.60	105.00	2.35	19.60	1.46	37.70	25.70
Till3	0.25	35.20	17.10	0.50	6.04	4.60	1.27	296.00	0.22	0.45	6.25	563.00	0.16	0.16	3.58	91.90	1.54	17.10	1.27	39.70	31.70
Till2	0.25	12.10	2.03	0.50	4.43	6.08	0.44	648.00	0.26	1.01	8.94	1270.00	0.93	0.57	9.85	67.90	3.17	42.20	3.26	82.40	43.70
Till2	0.53	24.30	4.18	0.50	9.06	8.92	0.93	1010.00	0.25	1.75	7.60	1590.00	1.46	0.68	7.89	125.00	3.16	49.60	5.29	50.00	45.00
Till2	1.23	45.00	6.99	27.50	8.24	13.90	1.16	1670.00	0.26	1.91	14.00	1850.00	1.81	0.78	11.10	198.00	4.37	85.30	6.16	111.00	62.70
Till3	0.25	24.00	18.60	0.50	12.00	4.29	0.57	346.00	0.12	0.47	5.29	367.00	0.10	0.20	2.66	99.20	2.01	18.00	1.49	34.80	30.40
Till3	0.25	26.10	14.50	0.50	9.50	3.36	0.10	248.00	0.11	0.33	4.09	349.00	0.10	0.12	2.33	76.50	1.10	13.40	1.20	39.70	25.70
Till3	0.25	16.90	18.50	0.50	10.80	4.65	0.64	337.00	0.17	0.59	5.43	610.00	0.15	0.21	3.95	103.00	1.79	16.50	1.37	56.30	31.60
NAT98-282	0.25	24.90	16.40	15.10	6.33	1.39	0.30	2970.00	0.24	0.25	2.06	334.00	0.34	0.11	2.22	212.00	1.08	8.35	0.69	10.70	18.10
Till2	0.25	20.50	1.85	0.50	8.70	7.81	0.10	817.00	0.20	1.35	5.19	450.00	1.51	0.47	8.44	51.40	2.04	49.20	4.29	48.60	21.60
Till3	0.25	17.10	15.60	0.50	10.00	3.43	0.30	258.00	0.11	0.31	4.19	427.00	0.11	0.14	2.65	83.70	1.22	14.90	0.99	37.80	31.80
Till3	0.70	10.30	17.50	0.50	10.00	4.52	0.65	342.00	0.17	0.52	5.99	588.00	0.12	0.21	3.71	98.90	1.91	18.50	1.40	42.00	29.50